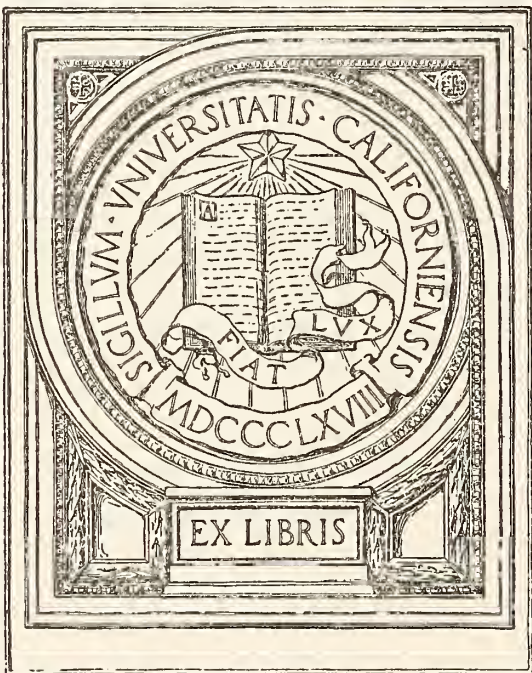
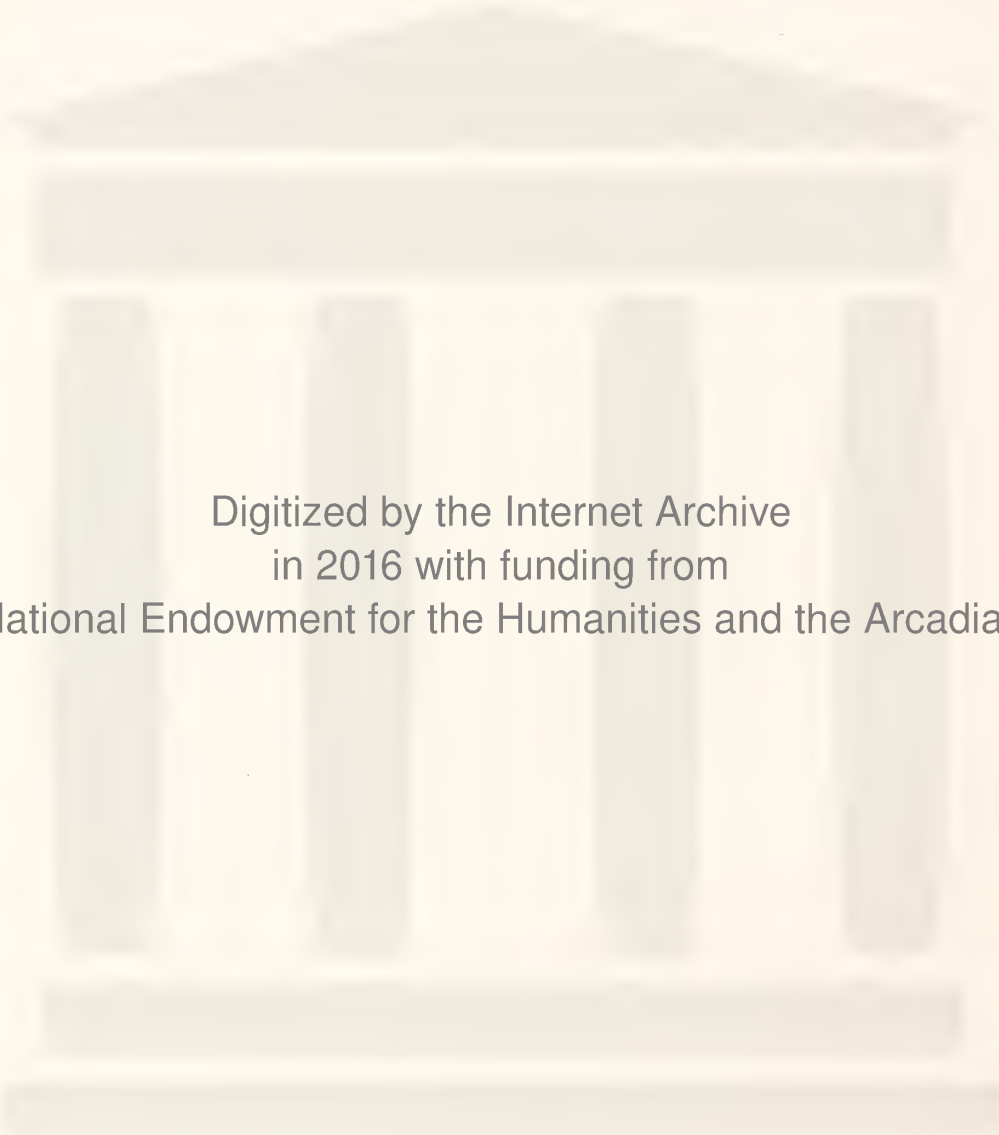


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The Journal of the Iowa State Medical Society

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Volume XVIII, January to December
1928

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The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, JANUARY, 1928

No. 1

THE TREATMENT OF TUMORS OF THE BLADDER BY MEANS OF SURGICAL DIATHERMY*

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The purpose of this communication is to present an unbiased appraisal as to the value of surgical diathermy in the management of tumors of the bladder. The information possessed by the writer regarding the efficacy of this physical means in the treatment of tumors of the bladder has been acquired from many sources; however, the conclusions upon which this paper is based have been derived from an analysis of fifteen cases which have come under my observation the past four years. It is not the intent of this paper that surgical diathermy should supplant the other well known methods utilized in the treatment of tumors of the bladder at the present time. On the contrary, I firmly believe that every surgeon should be thoroughly conversant with all the recognized procedures that possess merit and be able to apply them as he sees fit.

As one scans the comprehensive literature of today on the management of tumors of the bladder, he is impressed with the varied opinions that are expressed. The futility of surgical excision in the treatment of tumors of the bladder can be best interpreted when the assertions of such eminent surgeons as Kelly, Kolischer, Crobus, Wyeth, Clark and Doyen are read. I quote verbatim a paragraph from an article by Dr. Howard Kelly as it appeared in one of our Journals:

Surgery is the most aggressive procedure and the only one associated with serious risk. The limitations of surgery are at present, as in the past, due to the fact, with rare exceptions, that it is only applicable to isolated, pedunculated growth—the simplest growth under discussion—while it is worse than useless in carcinoma invading the bladder wall. It is difficult to see what will remain for the pure surgeon to employ his art except as an adjunct to radium or endothermy.

We have felt quite a serious temptation to spend considerable time in developing another form of surgery. It is quite certain that any attempt to remove a tumor by means of forceps or knife exposes the patient to the risk of serious hemorrhage and should be eliminated.

On the other hand, however, such well known surgeons as Judd, Young, and Scott, Squier and Chute have been much in favor of radical surgical methods in the treatment of tumors of the bladder, and most of them condemn the various conservative operative procedures. According to Judd:

Surgeons have been too ready to give up radical operations for malignant disease of the urinary bladder which is for a long time confined to the bladder and immediate tissues, and therefore, preeminently suited to surgical treatment. Not all cases can be cured, but a higher proportion will be cured by radical surgical treatment than by any other method. Total cystectomy and implantation of the ureters into the rectum should be performed more often in cases of cancer of the bladder. Up to the present time the failures have been due to too conservative operative procedures and often to delay in operating on account of following some less radical plan first.

As to the value of the roentgen x-ray and radium in the therapy of tumors of the bladder considerable skepticism prevails. While there are on record histories of many cases that have been greatly benefited by the use of x-ray and irradiation by radon seeds implanted through the cystoscope yet the majority of urologists place very little faith in the curative properties of these physical agents.

The methods in vogue at the present time for producing destruction of tissues are by means of the various forms of cauteries. With this type of heat application, the heat is transmitted to the tissue by contact only. It is localized, first in the instrument, and secondarily radiated into the tissue. The disadvantage of this method of heat application is the superficial character of heat distribution which is responsible for a condition termed carbonization. The carbonization which develops under these circumstances so insulates

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

the tissues that further deep heat penetration is impeded. This factor alone is responsible for the many failures that occur when the cautery form of heat application is employed to produce destructive changes in neoplastic tissues.

The heat generated by the high frequency current differs greatly from that of the cautery because it is generated within the tissue by the resistance offered to the current during its passage. The superficial character of heat penetration does not occur here for the particular reason that the heat is first localized within the tissues themselves, and secondarily in the instrument. Carbonization can be eliminated if one is careful with the manipulation of the current strength. We, therefore, have in this latter method of heat generation one capable of causing

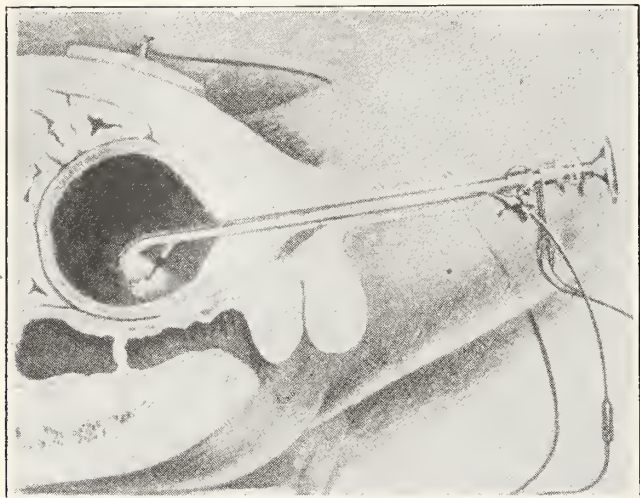


FIGURE 1. Growth being treated by diathermy through a cystoscope. Diagram.

the necessary deep heat penetration so essential for complete destruction of the cancer cells.

While it is outside of the province of this paper to discuss the diagnosis of neoplastic diseases of the bladder, I consider diagnosis vastly important and feel that it is absolutely essential to stress some phase of it. There is a unanimity of opinion among the urologists of today that hematuria is usually the first symptom indicative of tumors of the bladder. Blood in the urine is never physiological; it is a symptom of some pathological condition. Seventy out of every hundred cases of painless hematuria are suffering from tumor of the bladder. It is my belief that hematuria of this particular character should be regarded as a serious condition, and its presence should demand a careful cystoscopic examination at the earliest possible moment. The symptomatic treatment of this cardinal symptom of tumor of the bladder simply lulls the patient

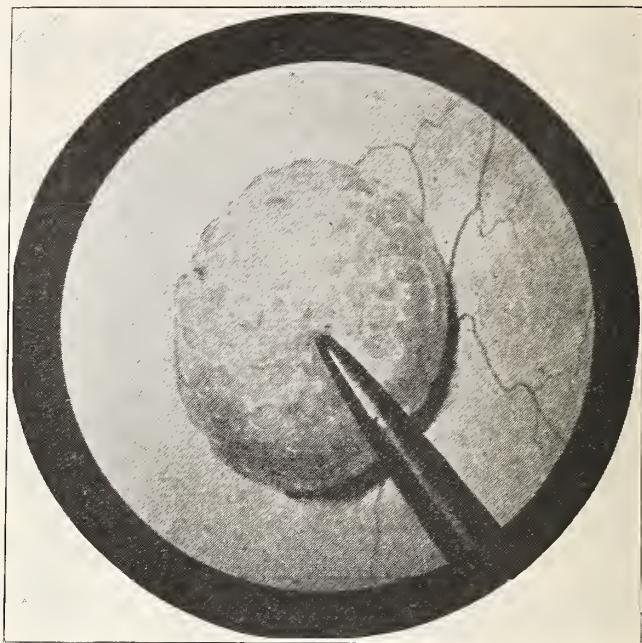


FIGURE 2. Electrode in contact with growth.

into a sense of false security and delays, considerably, the chances of recovery from this serious malady.

I will now proceed to the most important part of this paper—the result obtained with surgical diathermy in a series of fifteen cases studied over a period of four years. I also had under my care and observation other patients, but, because I have been unable to ascertain their whereabouts and not conversant with their present condition, they are not included in this report.

The following illustrated cases are cited:

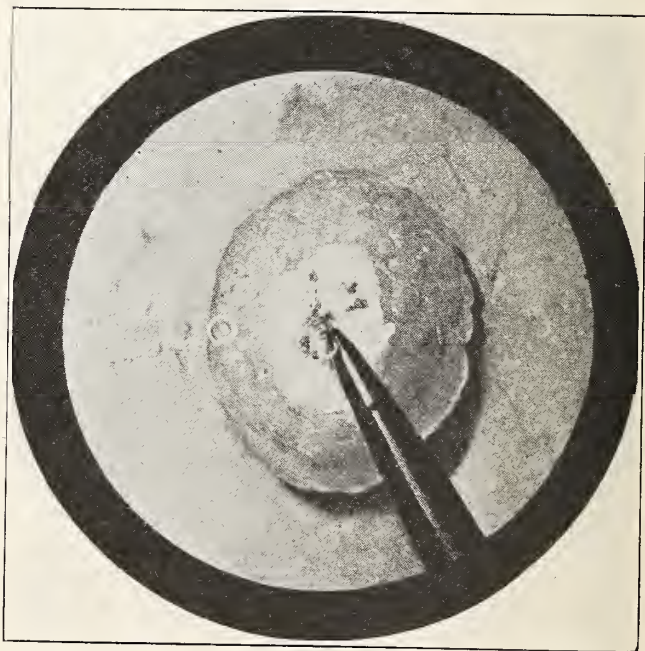


FIGURE 3. Commencing application of diathermy to growth: bubbles of gas appearing in view.

Figures 1, 2 and 3 are reproduced by permission and courtesy of E. Canny Ryall.

Group I. Two patients, ages sixty-five and seventy years respectively. Diagnosis in each case malignant papillomata of the bladder, extensive in character associated with hypertrophy of the prostate gland. Suprapubic cystotomy with electrocoagulation of growth by diathermy was performed in each case. Later in both patients a prostatectomy was done. One patient was cystoscoped at intervals of every three months with no evidence of recurrence, enjoyed fairly good health following the operation and was symptomatically well; died two years later from an attack of myocarditis.

The other patient was cystoscoped only once following operation, no evidence of recurrence, was apparently in good health on leaving the hospital, free from all symptoms; two years later his physician reported his death from pneumonia.

Group II. Two patients; both female, ages seventy and seventy-five respectively. Diagnosis: One multiple, infiltrating, malignant papillomata of the bladder, extensive in character; the other, a single sessile form of tumor. Supra-pubic cystotomy with electrocoagulation of the growth by diathermy was carried out in each case. One patient lived for a period of one year with comparative relief, cystoscoped a short time before her death, on examination a small recurrence was noted.

The second patient died three weeks following the operation as a result of renal insufficiency.

Group III. Two patients; both male, ages sixty and fifty-five respectively. Diagnosis: One with a

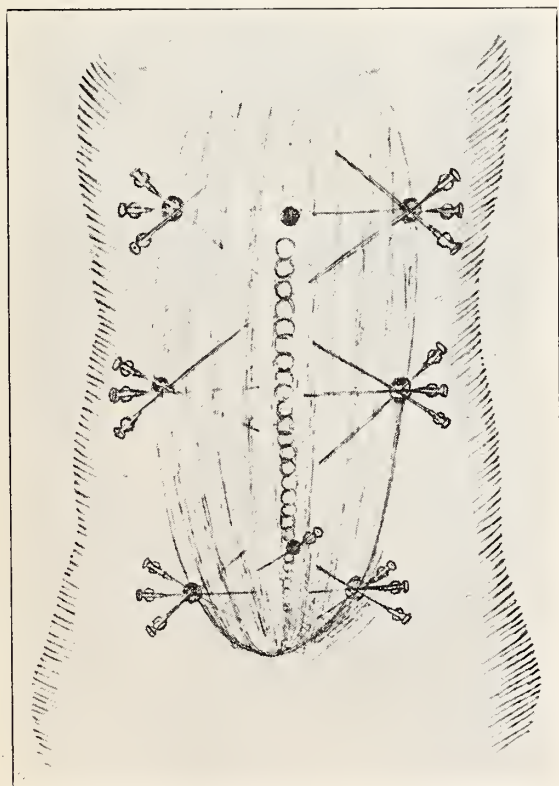


FIGURE 4. Illustrates diagrammatically the method employed to produce regional anesthesia for abdominal field block.

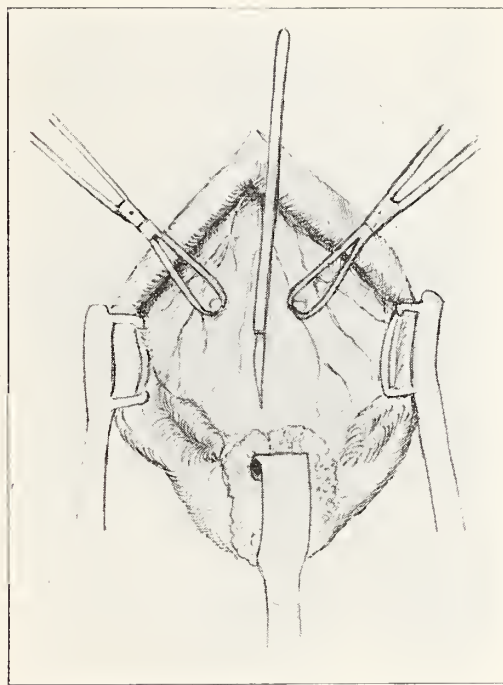


FIGURE 5. Illustrates method employed in order to expose the anterior wall of bladder.

single papillary carcinoma of the bladder; the other an extensive multiple, malignant, infiltrating papillomata, suprapubic cystotomy was performed on each patient, and the entire tumor bearing area destroyed by surgical diathermy. One patient left the hospital in three months with a Pezzet tube sutured in the bladder, was requested to report for further observation and treatment. A month later his physician reported his death from suicide.

The second patient is still under my care and observation, apparently free from symptoms six months following operation.

Group IV. In this group we have four patients ages forty-five to sixty-seven years. Diagnosis: Papillomata both benign and malignant in character. Electro-coagulation carried out by the open method in three cases, and one transurethral. One patient now living four years after operation; two patients, two years; one patient, a year, and the other patient, six months following operation. All patients in this group have been cystoscoped at various times and are free from their complaints with no evidence of recurrence.

Group V. Five patients are included in this group, four male and one female; ages thirty to fifty years. Diagnosis: Single, benign papillomata observed in all; surgical diathermy, transurethral, was performed in these cases. Up to the present time, two patients in this group have had recurrence, both were again treated by the same procedure with seemingly apparent relief. One patient is free from trouble three years following treatment; one, six months, and one two years after treatment.

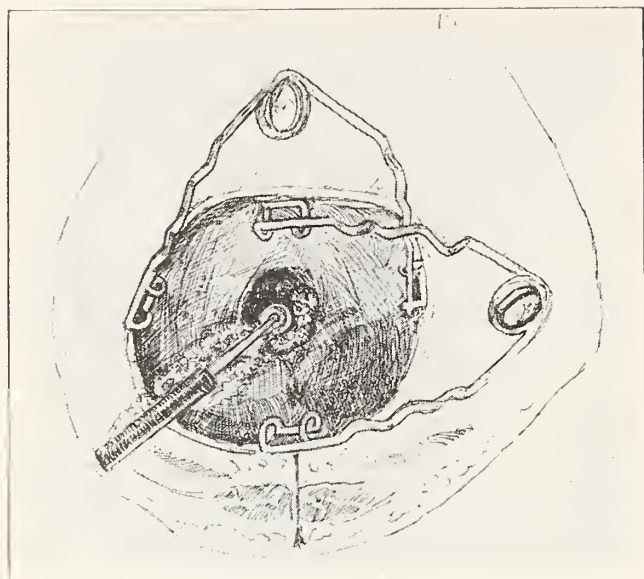


FIGURE 6. Illustrating the method of performing surgical diathermy in tumors of the bladder by the open method.

SUMMARY

In summarizing the results in these fifteen cases, we find five patients diseased. Of this number, two lived for a period of two years with relief and free from symptoms; one lived a duration of one year with some degree of palliation; one, only a short period of three weeks; and one committed suicide soon after leaving the hospital. The remaining ten patients are living at the present time, apparently well and free from their complaint.

Before considering somewhat in detail the technic in the application of this electrothermic method, allow me to enumerate the essential requirements necessary for the successful accomplishment of this procedure.

First—Accurate understanding of the basic fundamental principles of the high frequency current.

Second—An intimate knowledge of the anatomy and pathology of the urological tract.

Third—Possession of a standard machine of the latest type.

Fourth—Skill and experience in the art of surgical technic.

Fifth—Careful preliminary preparation of the patient, particularly those in which the open operation is contemplated.

DETAILS OF OPERATION

Anesthesia—Regional anesthesia is preeminently suited for this method of surgery, and in most of my cases, this form of anesthetic is used. In the transurethral diathermic application where the destruction of the tumor is carried out by means of a cystoscopy, sacral anesthesia only

is necessary. Where the coagulation process is executed through a supra-pubic cystotomy, sacral anesthesia together with an abdominal field block is utilized. In both methods, however, patients receive a preliminary hyperdermic injection of a small dose of scopolamine and morphine.

TECHNIC OF TREATMENT IN THE TRANSURETHRAL METHOD

The inactive electrode is placed beneath the sacrum or over the bladder a few centimeters back of the symphysis. The active electrode consists of a flexible insulated bougie with a metal tip. The usual cystoscopy is carried out. The bougie is inserted through the sheath of the cystoscope and its distal end engaged firmly into the substance of the growth; the current is turned on very slowly and gradually increased. The appearance of a blanching of the tissue or a grayish whitening color is an indicator that sufficient coagulation has taken place in the area treated. This is repeated numerous times during the cystoscopic seance until most of the tumor area is covered. Three to four treatments of this character are required, sometimes, for the complete destruction of the tumor.

TECHNIC OF TREATMENT IN THE OPEN METHOD

The indifferent electrode is placed beneath the sacrum in intimate contact with the surface of

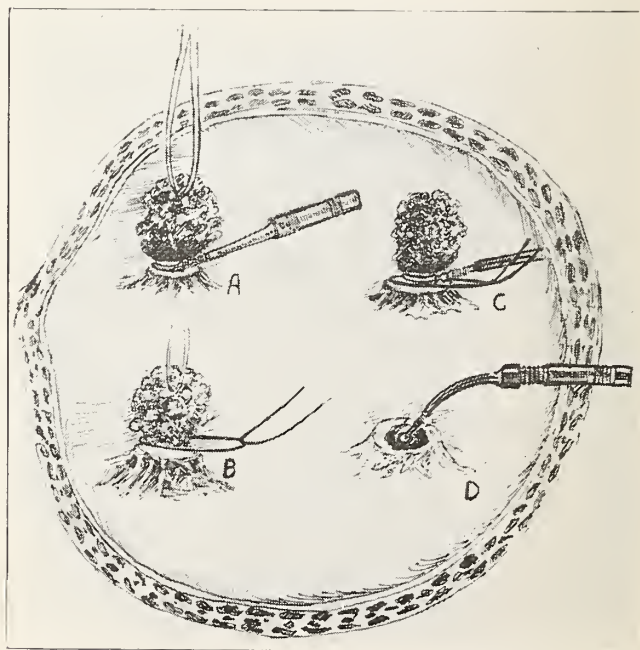


FIGURE 7. Illustrating the method of removing tumors of the bladder that are pedunculated by the surgical diathermic knife.

A.—Demonstrates the diathermic knife encircling the base of tumor.

B.—Transfixing the growth with heavy surgical ligature.

C.—Excising the tumor with the diathermic knife.

D.—Coagulation of the base of the tumor with a spheroid electrode after the removal of the neoplasm.

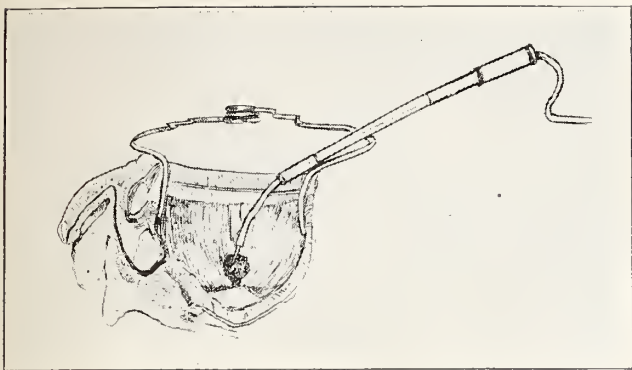


FIGURE 8. Illustrating the method of producing destruction of a single bladder tumor by means of the plank electrode.

the body. The active electrode used in this method consists of various shaped and sized discs together with the so-called electro coagulation knife. These electrodes are interchangeable and are attached to an insulated ebony holder. The selection of the active electrode is entirely dependent upon the character, accessibility and number of growths. If one is confronted with the pedunculated form, the tumor can be best removed with the electro coagulation knife followed by a thorough coagulation of the base with a circular button-shaped electrode. If, however, we are contending with tumors of unusual size and multiple in character, it is preferable to destroy the growth by using the various forms of flat disc electrodes. Irrespective of the particular active electrode selected for the coagulation, one must begin the destruction of the growth using a small amount of amperage and gradually increasing to the strength required for thorough coagulation. The first indication that proper coagulation has taken place is the blanching and steaming of the tissue, and when this occurs, the current is shut off and the electrode removed. This process is repeated until the entire tumor area is destroyed.

In brief, what then are the principle advantages to be gained by surgical diathermy in the

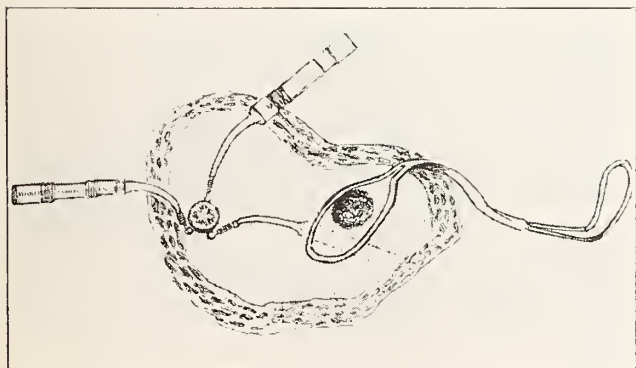


FIGURE 9. Illustrates by diagram the process of circumvallation and method of retraction of bladder wall with a Barringer retractor.

management of neoplastic conditions of the bladder?

First—The tumor can be extirpated with a greater degree of conservatism because it is not necessary to remove much of the adjacent tissue.

Second—The tumor is removed in a necrotic state instead of a mass of viable cells, this is of considerable importance because it prevents, in a general measure, the development of metastasis elsewhere in the body.

Third—Hemorrhage seldom occurs with this method for the reason that the blood-vessels in the area treated are thrombosed; therefore, it can be made a bloodless procedure.

Fourth—Infection is prevented because the region in which the treatment is carried out is

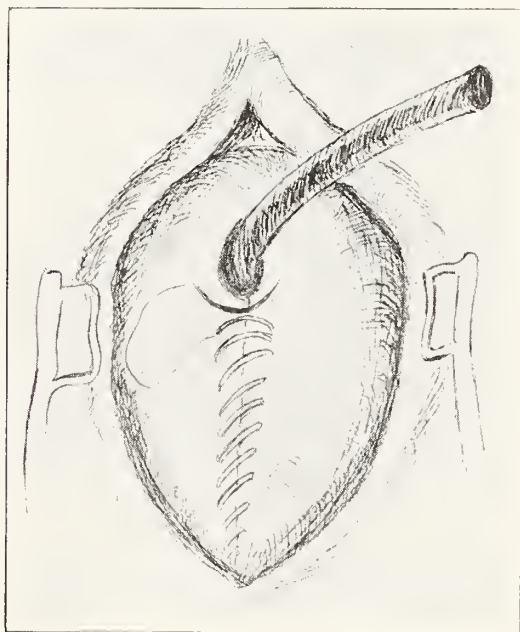


FIGURE 10. Demonstrates the closure of bladder wall around the pezzet catheter at the upper angle of incision.

rendered sterile as a result of the thermic properties of the current.

Fifth—Shock to the system is reduced to the minimum because the factors conducive to the development of shock are absent.

Sixth—Tumors which are usually inoperable by surgical excision can be removed by surgical diathermy without jeopardizing the life of the patient.

Seventh—This method lends itself best to local anesthesia, as the various inhalation anesthetics are often contraindicated, because of their inflammable properties.

CONCLUSION

In conclusion, I firmly believe that surgical diathermy as outlined in this communication is by all means the method par excellence for the

treatment of neoplastic diseases of the bladder; and, in my opinion, is immeasurably superior to any other method in vogue at the present time. I would advise the members of the profession who are interested in the therapy of this important malady to acquaint themselves with the

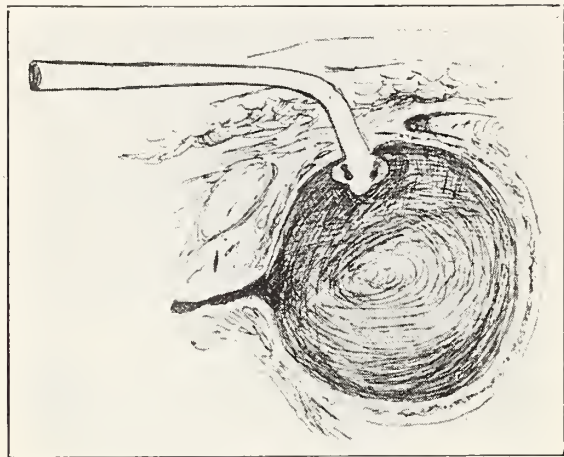


FIGURE 11. Shows the proper position of the pezzet catheter in the bladder incision.

method of surgical diathermy in order that they may use it intelligently and thereby secure a maximum amount of benefit to the patient.

I here wish to acknowledge free use of the literature on this subject as indicated in the bibliography, and to express my thanks for the helpful suggestions in personal letters from Corbus, O'Connor, Morgan, Kolischer, Ward, Cunningham, Howard Kelly, Starr Judd and Canny Ryall.

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Discussion

Dr. Walter E. Scott, Adel—Dr. Fleischman's paper is perhaps an innovation to most of the men here who are probably doing their surgical work by the use of the knife. However, surgical diathermy is surgery just as much as any other surgery and requires fully as careful technique. As the essayist stated, it is a recognized procedure. The A. M. A. now regards the practice of medicine as consisting of the triad of medicine, surgery and physiotherapy. The time is coming when it will be considered malpractice not to refer our cases for physiotherapy or to use physiotherapy methods where indicated, as anything else. While this is a recognized procedure, now it was doing just as good work fifteen or twenty years before it was recognized as it has been doing since recognition was forced upon our national body. Dr. Fleischman has covered the field so thoroughly that there is very little left to be said. If cancer is a local condition, I feel that there is no other procedure that is equal to diathermy in its destruction, for the reasons the essayist pointed out. One idea the Doctor did not mention, and that is that the heat itself which is generated in the tissues follows the tumor and destroys the growth wherever it reaches, and destroys it without the normal tissues being destroyed for the reason that a greater amount of heat is required to destroy normal tissue than is required to destroy the growth. The difference between the actual cautery, which, of course, penetrates by radiation, and surgical diathermy, is that the latter generates the heat within the tissues, thus making it the method of choice in the destruction of tumors. As stated by the essayist, there is but slight danger of infection or hemorrhage, and it has many advantages. X-ray and radium are not effective in these cases, but have their place in medi-

cine and surgery. So also has an up-to-date high frequency machine for medical and surgical diathermy. It would be a little off the subject to discuss medical diathermy; but glandular therapy by the use of heat generated by diathermy in the pancreas, for instance, in the thyroid gland, or in any other gland of the body, for the purpose of increasing their secretions, is one of the best methods I know of. I have had considerable experience with diathermy in diabetes. There is no difference between medical and surgical diathermy except the relative size of the electrodes. I have had cases of sugar diabetes in which the urine passed by the patient before the treatment would contain a very large amount of sugar, one drop making a very decided reaction by the Fehling test. Then with the large electrode over the back and a smaller one over the pancreas I have given him diathermy for a period of, say, forty minutes, and in many cases the patient will get off the table and pass a specimen of urine in which there is no sugar whatever. I do not know whether that result is due to putting into activity the islands of Langerhans, or whether it is an effect on the autonomic nervous system. I have used it in the form of autocondensation with similar results. So I believe it acts more through the autonomic nervous system. Yesterday an elderly "medic" said that we should have an open mind regarding new ideas. Everything worth while in medicine and surgery is not known today. There is today great advancement in every line of work, and because we do not understand a thing is no reason why we should condemn it. Investigation may reveal scientific truth in it. We should have an open mind for the newer things that are brought out. I congratulate the essayist on his excellent paper. Pardon my digression to the medical side of physiotherapy, of which I am one of the pioneers.

Dr. G. V. Coughlan, Council Bluffs—I feel that Dr. Fleischman has brought something of great value to all of us here this morning. The series of cases presented by him demonstrates marked improvement over any treatment devised heretofore. I have not done this particular type of work. It has been my experience to observe the results of treatment of the bladder through cauterization followed by the implantation of radium, and I have seen some cases several years following this treatment where the bladder has become apparently normal, and one would have to look closely to find the scar. One symptom is particularly important and that is hematuria. If the essayist has succeeded in bringing home to the general practitioner the fact that hematuria is always a danger sign, he has accomplished much. Many times we see cases of hematuria that have been treated for months or years by the doctor giving a little medicine and

stating that it did not amount to anything, until finally the condition, which would have been curable at one time, has become incurable. I recently saw the case of a man with slight hematuria. We made cystoscopic examination and found blood coming from the right kidney. Everything pointed to a normal kidney on that side, but we removed it. In the upper calyx was found a small ulcerated area. We feel that this was possibly a beginning malignant ulceration. Another point of value in this work is that of caudal or sacral anesthesia, the technic of which is very easy. The needle is introduced through the hiatus between the coccyx and the sacrum at an angle of forty-five degrees, then pushed up parallel to the long axis of the body two to three inches and 20 c.c. of 3 per cent novocain is then introduced into the spinal canal and within ten minutes a satisfactory anesthesia is obtained. I have used this method of producing anesthesia in doing cystoscopy, where without it the procedure was something to be dreaded. If necessary to repeat cystoscopy we do not have to argue in order to be permitted to make another cystoscopic examination. A point the Doctor forgot to mention is that his method of treatment prevents implantation tumors. I have seen two implantation tumors in old scars where the tumor was removed surgically, and I feel that if we can prevent one of these in a thousand cases we have accomplished something.

Dr. Fleischman (closing)—There is nothing more that I would care to add regarding this method of treatment of tumors of the bladder. I firmly believe that this procedure is the method of choice for this particular condition. While I realize that it does not work successfully in all types of bladder tumors, yet the result achieved with it is far better than accomplished with other methods. I might add that I have stepped outside the pale of urology to assist some of my colleagues of Des Moines in the use of this method in the treatment of neoplasm of other structures and from the reports given to me by them it has also been quite successful. A great many practitioners are under the impression that to be able to carry out this procedure with any degree of efficiency, one must possess comprehensive knowledge of the physics of the electrical current. I wish to dispel that idea and in reply say that such is not the case, the requisites necessary for the successful accomplishment of this method depend upon the knowledge of the basic principles of the high frequency current and the possession of a modern machine so constructed that it is practically fool proof. I wish to express my appreciation to the members of the Society for their attentiveness and courtesy extended to me during the time allotted to me.

CATARACT OPERATIONS PERFORMED UPON PATIENTS IN THEIR OWN BED*

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Individuals, as a rule, place a higher value on their sight than they do upon their own lives. It is, therefore, very important that the operation for the restoration of sight be performed under the most favorable conditions for the patient. In this paper, when I refer to the cataract operation, I refer to the operation for senile cataract. Cataract operations have, of course, been performed under almost every condition, from the street corner depression operation as practiced in India, to the operation performed in the most lavishly equipped modern hospital.

In performing an operation for senile cataract, there are three things to be considered. First, the probable end result as far as vision is concerned. Second, the financial condition of the patient. And third, the physical condition of the patient in respect to the trouble expected in handling the case.

All patients who present themselves for cataract operation are interested to know just what their chances are of regaining their sight, and to what extent. It seems that most of them have no conception of what is to be done, thinking that some film or something or other is to be taken from their eyes, and that in a few days they will have a new pair of glasses and will be able to see as well as they ever did. Such patients should, of course, be told what they are going to have done, and not too much promised them in the way of restoration of vision. They should also have full instructions as to what is to be expected of them during the operation—also as to what they shall have to do after the operation is performed. They should be informed that a certain per cent of cataract operations are failures, and that they are taking a chance of which no one can tell what the eventual result will be.

The financial condition of the patient enters into the cataract operation to a great extent. If the patient goes to a hospital, he must necessarily have a private room and a private nurse. In these days of high cost of living, this entails considerable expense and can hardly be done for less than one hundred dollars per week. If the surgeon performs his operation gratis, the pa-

tient is still assuming an expense which is sometimes far beyond his means to meet. Of course such patients could be sent to a charitable hospital if one is nearby, but this is not always advisable.

The patient's physical condition must also be considered in this operation. The patient who is fat and plethoric is a much greater risk than one who is thin and of a phlegmatic temperament. Persons who are infirm and have physical ailments such as renal, cardiac or vascular are, of course, greater risks.

The posture of the patient has much to do with the probability of a good result. That is, old patients who have stooped shoulders and head far forward, must be handled accordingly, with suitable supports for their back and head so that they can always be as comfortable as it is possible to make them.

It is very important that the patient should not be moved very much during the first few hours after the operation is performed. It is also very important that the patient's mind is serene, and that he is not worried about anything. His physical comfort itself should also be considered. All these things tend to act either against or for a favorable result.

A short time ago, I had a patient come to see me who had senile cataracts in both eyes, the vision in the right eye being light and shadows, the vision in the left being about 20/100ths. He was a man fifty-four years of age and weighed almost three hundred pounds. I knew that it would be a hard proposition to lift him from an operating table to a cart and then back into his bed in the hospital without undue strain on the eye. Also, I found that he was too big to fit into the ordinary hospital bed. I decided to try operating upon him in his house, putting him in an ordinary double bed, and performing the operation upon him in bed, thus obviating the necessity of moving him. The operation was performed upon the right eye, the patient having a nurse to take care of him. He was up and about on the third day, and came through with no complications and with a vision of 20/20ths, of course with correcting lens, and had no trouble whatever during his convalescence.

Having had such good luck with this patient, I decided to try more operations upon patients in their own beds, and have so far had a series of twenty-six consecutive cases, all operated upon in bed, some in the hospital in their own rooms, and some in their own homes. A series of twenty-six operations for senile cataract is not a large series of cases, to be sure, but when

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927, Section Ophthalmology, Otology and Rhino-Laryngology.

one considers the proximity of the city in which I live to the State Medical College, together with the Perkins-Haskell law, which allows patients to be operated upon at the expense of the state, I would think that such a series is worthy of being reported.

The ages of these patients varied from fifty-one to eighty-nine years, with an average of sixty-nine years. Twenty of them were performed in the patient's bed in the patient's own home, and six were performed in the hospital in the patient's own room. Sixteen were operations upon the right eye, and ten were operations upon the left eye. In twenty-three cases, I did the ordinary linear extraction with iridectomy, and in three cases performed the intracapsular with iridectomy.

The technic of the operation was no different from that used in the operating room. The right eye was operated upon with the right hand, and the left eye with the left hand, the patient being placed in bed with his head toward the foot of the bed in order to give a little more freedom in the operation. I used only one assistant, Dr. John E. Stansbury, who has helped me in all my cases for the last fifteen years and who has always everything in readiness and knows just exactly what to do at the right time. The patient is allowed to be dressed as he ordinarily is when he goes to bed. If he is accustomed to sleeping with his underclothes on, he is allowed to have them. In fact, the main thing to bear in mind is to keep the patient feeling comfortable. Any unaccustomed manner of being dressed seems to give an old person a great deal of discomfort. The patient is allowed one or two pillows, according to how he is used to sleeping, and never is required to lie flat on his back without a pillow, which is so distressing and so irritating to anyone who has been used to sleeping with pillows for many years.

After the operation, the patient is told to keep quiet and remain on his back, and as soon as he begins to be fidgety he is allowed to turn on the side opposite the operated eye. Usually the patient will remain fairly quiet for two or three hours, after which time he can be turned without any danger to the operated eye.

Many aged patients are not used to having a sponge bath every day, and I never bother a patient who is not used to having such baths by giving them. If a patient is not used to taking baths, he is better off without them. Patients are given soft diet for two or three days, and on the second or third day are allowed to sit up in bed, as a rule.

Both eyes are bandaged, and the eyes are not

inspected until the end of the fifth day, when the bandage over the unoperated eye can be left off. The patient is given considerable freedom, and is kept from fretting or worrying, even though he has to be taken out of bed on the day of the operation, as it appears that more harm is done by a patient fretting than by moving him several hours after the operation.

In a hospital operation, it is necessary to take patients out of bed, put them on a cart, wheel them through a long corridor, put them on an elevator, up several stories, wheel them into the operating room, and then go through this same thing in the reverse after the operation is performed. This all tends to stir the patient up and make him nervous. When he is lifted from the table after the operation, he invariably tries to help himself by raising his head and by straining. This tends to congest the eye, and could lead to retinal hemorrhage. Going down in an elevator lying upon a cart with the eyes bandaged often tends to make elderly persons nauseated. This is, of course, a bad thing after a cataract operation. If the patient is operated upon in his own bed in his own room, this feature is eliminated.

I believe that the first few hours after a cataract extraction are the most important of all as far as keeping the patient quiet is concerned. I think more harm can be done during this period than at any subsequent time during the healing of the wound.

The end results of my series of cases are quite gratifying, ranging from 20/60ths to 20/15th vision. One eye in the series was lost, not because of any complication as far as the operation or patient was concerned, but because the eye was one with choroiditis.

The patients operated upon in their beds are much easier to take care of and much happier than when operated upon in the operating room. Patients, especially an old patient, and of course all of these senile cataract operations are on old people, are much happier if they are at home with their own people and in their own beds. They do not like the idea of being in a hospital, especially so when they have to have both eyes bandaged. It certainly must be a helpless feeling for an old person to be lying in a strange place with both eyes bandaged, with strange noises all about. It is especially difficult to keep such patients quiet during an electrical storm. Any commotion seems to upset them. These things are all practically obviated when the patient is operated upon at home.

I think there is no added danger of infection. Of course, one has to be as careful as possible. The instruments are brought in sterilized, as are

also the dressings, etc., which are to be used. The eye to be operated upon is treated with some antiseptic such as argyrol or mercurochrome for several days before the operation. I do very little in the way of scrubbing the eye, feeling that mechanical irritation adds greatly to the liability of infection. As little manipulation as possible is the best in any operation, but it seems to me it applies more forcibly to the cataract operation than almost any other.

I do not wish to convey the idea that nobody else has ever operated upon a cataract patient in his own bed. The first cataract operation I ever performed after going into private practice I performed on a patient in his own bed. The patient had had the other eye operated upon and had lost it, having had the work done in the hospital. The patient refused to go to the hospital, so I operated upon him in his own home, and got a very good result.

Some operators have a special bed made which is wheeled into the operating room from the patient's room, and then back. This seems like a needless move, when the operation could be just as well done without taking the patient from his room.

I have searched the literature back as far as 1775, and am unable to find any report of a series of cases of cataracts operated upon in the patient's own bed. From my experience in the few cases I have tried, I am well satisfied, and feel that the results I have obtained were better than I had obtained from many more cases done in the operating room. I have had a great deal less trouble in taking care of these patients, and have had no cases of cataract mania. I expect to continue this method until something comes up which so far is unforeseen.

Discussion

Doctor Pearson, of Des Moines, reported a case where an individual was operated upon one day and the next day got up and went to work. Operation performed in his own office. The operation was successful. He suggests taking into consideration the temperament and physical condition of patient.

Doctor Wolfe: Suggests the mental attitude of the operator as well as that of the patient be taken into consideration before an operation.

Doctor Gresham says he has discontinued performing these operations at home for the reason he had had two or three bad accidents from some cases being operated on in their own home.

Doctor Dean, of Council Bluffs, reports cases of operations being performed at home with splendid results and also with equal success where the patient was operated on in hospital and watched carefully for a day or two after with equal success.

LUNG ABSCESS*

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Lung abscess has a place in the minds of students of disease of the chest that is in fair proportion to its interest as a disease entity and its relation to the welfare of its victim.

Lung abscess is unusual before the age of ten, or after the age of fifty, and is about equally divided between the sexes.

According to Pincoffs¹, the three chief etiological factors are: (a) Aspiration; (b) embolism; (c) primary lung infections, including infection following chest trauma, and idiopathic cases.

The term aspiration may be taken to mean the inhalation of solid, semi-solid, or fluid material which by irritation and infection may produce inflammation in the bronchi or lung.

There is a great diversity of opinion as to the position of aspiration as an etiological factor in lung abscess, ranging from Lynah², who firmly believes that nearly all are due to aspiration, to Cutler and Hunt of Peter Bent Brigham Hospital³, who think that practically all post operative pneumonias are embolic.

It is to be assumed that somewhere between these opposing views is the golden mean. In undertaking to evaluate the etiological importance of aspiration, it must be remembered that in 1912, C. W. Richardson reported the first case of abscess of the lung following tonsillectomy. Since then more emphasis has been placed on the study of this condition following operations on the upper respiratory tract. Myerson⁴ published the result of the immediate post-operative laryngoscopic examination of 100 tonsillectomy cases and reported that he found blood in the trachea and bronchi of seventy-nine. Jackson⁵ suggests the existence of a physiological and structural barrier against invasion by suppurative processes of the endo-bronchial route, but his essay has mainly to do with metallic substances.

Whittemore⁶ reports thirty-two cases, seventeen of which followed tonsillectomy; Singer and Graham⁷ thirty-four cases, 24 per cent of which followed tonsillectomy. General anesthesia, particularly the deep anesthesia required for tonsillectomy, with the consequent abolition of the pharyngeal reflex, has an important bearing. It is well to note that a review of 208 cases of abscess of the lung showed that only seven followed the use of local anesthesia.

Hedbloom⁸ reports that 85.9 per cent of 313 cases of post-tonsillectomy lung abscess followed

*Read before the Trudeau Society of the Los Angeles Medical Association.

general anesthesia, and the highest incidence was in cases operated upon with the patient in a sitting posture.

Another strong argument in favor of aspiration as an etiological factor is that from 20 to 30 per cent of all lung abscesses follow operations upon the upper respiratory tract.

The accidental aspiration of metallic substances such as tacks, screws, etc., or of vegetable substances such as peanuts or kernels of corn are common causes of lung abscess, the vegetable substances being particularly irritating to the lung tissue.

The substances commonly aspirated during operations upon the upper respiratory tract are blood, soft tissue, infected cheesy material or pus from the tonsil, small pieces of bone, or a tooth following dental operations. A great deal depends upon the variety and virulence of the infection, and the resistance of the patient.

Embolic—Mention has previously been made of the statement of Cutler & Hunt relative to embolic pneumonitis. Of Pinchoff's thirty-four cases, eight were embolic. They followed operations for appendicitis, inguinal hernia, uterine myoma, septic abortion, and parotid abscess.

Winner⁹ reports twenty-two cases, two of which were embolic. Other writers report similar cases, but one is struck by their comparative infrequency. In a very recent and exhaustive animal research study of post operative lung abscesses, Schlueter and Weidlein of Cleveland¹³ conclude that infected emboli are the commonest causative factors. They divide post operative lung abscesses into two pathological types—bronchiectatic abscess and extra bronchial or parenchymatous abscess—the first originating within the air passages, the second within the parenchymatous tissues, in which type the infectious agent is carried by the blood stream.

Primary infections are the causative factors in a very large group of lung abscesses. Winner states that nearly 25 per cent of his cases belonged to this class.

Spano¹⁰ reports a case due to the Plaut-Vincent bacillus, which was successfully treated with the neo-arsphenamine. Lemon, of the Mayo Clinic, reports eighty-one cases of lung abscess, thirty-one of which followed pneumonia and nineteen, influenza.

McCray reports seventy-five cases following lobar pneumonia, and the more exact Frankel analyzed 1200 cases of lobar pneumonia and found that 2 per cent developed lung abscess.

Greer reports thirty-three cases, eleven of which followed influenza and five, pneumonia.

An occasional writer mentions the rupture of an interlobar empyema into the lung with abscess formation. Infarcts, which occur rather frequently, rarely cause abscess. Meyer mentions syphilis, tumors, actinomycosis and leprosy as causes. Trauma of the chest with contusions and extravasation of blood into the lung tissue favors abscess formation.

Idiopathic—There is also a large idiopathic group, but further study and greater familiarity with the condition may align them with one or the other of the above mentioned classes. The pathological findings are those of a localized pneumonitis, part of which undergoes softening and autolysis with the formation of a cavity. In some cases the change is rapid; in others, slow. Lynah says, bronchoscopic examination shows a "pus-soaked sponge" condition of the lung. The cavity may increase rapidly in size, if there is little walling off, or there may be marked consolidation about it with slight or no increase in size. Some cases are characterized by the formation throughout the lung of numerous abscesses in all stages of development. The purulent material is finally discharged through a bronchus, and contains a great variety of organisms, the staphylococcus and streptococcus predominating. There is usually a pleuritis in the region of the abscess, the symptoms vary with the etiology and organism. In an embolic case the onset is usually sudden, with prostration and severe pain. The aspiration type usually follows six to twelve days after an operation on the upper respiratory tract; the onset is more gradual and cough and fever marked. The pneumonia case manifests itself by increased fever and cough, and occasionally gangrenous or fetid sputum.

The sputum in lung abscess shows itself early, and rapidly increases in amount. It may come in a sudden gush; the odor is fetid and soon permeates the room. The cough is paroxysmal and exhausting, a slight movement on the part of the patient usually producing a severe attack. Deep soreness in the chest is commonly present. The temperature is variable and irregular, ranging from 100 to 104. There is marked loss of weight, and the appetite is poor.

Empyema is a frequent complication. If it occurs early, it makes the diagnosis of abscess more difficult. Clubbing of the fingers is usually present: Subacute arthritis, hemorrhage from the abscess and emboli in the vessels of the extremities and brain have been reported.

Physical examination of the chest will roughly localize the lesion but the amount of pleuritic involvement and its density are difficult to de-

termine, even by x-ray. It is well to examine the patient both before and after postural drainage, especially in the cases where numerous large rales are present.

It is of interest to note that in the post-operative group the lower lobes are involved in about 75 per cent of the cases, and the right lower lobe in 50 per cent. In the non-operative cases, the lower lobes are involved in 71 per cent of the cases; the right in 38 per cent, the left in 33 per cent.

It is sometimes difficult to diagnose from pulmonary tuberculosis, particularly if hemorrhage has taken place; but the history and examination of the sputum will usually clear the matter.

Bronchiectasis offers the greatest difficulty, and may co-exist with abscess. Injections of lipiodol into each bronchus separately and at different dates, followed by x-ray pictures of the chest, is the greatest value as a diagnostic aid.

Cancer of the lung may confuse, but radiographs and repeated examinations will usually make the matter plain. Good radiographs are invaluable in diagnosis and in checking the results of treatment if pneumothorax or other surgery is done.

Exploratory puncture is rarely of value, but where the aspiration of an empyema may eliminate diagnostic difficulties, it should be done. The use of the bronchoscope is of value, particularly since Jackson has shown the existence of unrecognized foreign bodies in the lung. It is being more frequently used as a diagnostic aid.

The prognosis is poor; 30 to 60 per cent succumb. The embolic form is the most serious, with a mortality of 50 per cent. It is also true that a large number of post aspiration cases affect spontaneous cures, and an abscess due to a foreign body is almost certainly cured by the removal or coughing up of the foreign body.

Treatment—There remains to be treated, early or late, unresolved cases of single or multiple abscesses, with thick or thin walls, deeply or superficially placed. The treatment may be classified as follows:

TREATMENT OF LUNG ABSCESS	Medical	Postural Drainage
		Drugs { Relief of Symptoms Lipiodol Arsphenamine
	Surgical	Artificial Pneumothorax
		Thoracoplasty
		Drainage by Re-section of Rib and Tube
		Drainage by Bronchoscope Lobectomy

Treatment by arsphenamine in syphilis and Plaut-Vincent infection is very satisfactory. Postural drainage can of course be used in conjunction with other treatment where the patient's general condition warrants it. Various drugs are used as inhalations to relieve fetor and facilitate expectoration, and may render good service, but can be looked upon only as aids.

In the early cases where the pleurae are not adherent and the abscess communicates with a bronchus, artificial pneumothorax will usually effect a cure. It is best to introduce 200 to 300 c.c. of air every other day until satisfactory results are obtained. Where pneumothorax cannot be given, owing to pleural adhesions, a graded thoracoplasty after the manner of Hedblom is good treatment.

In all cases where there is any doubt as to the existence of a foreign body, the bronchoscope should be used in conjunction with the x-ray. Bronchoscopic drainage of a certain type of abscess does great good. Drainage with resection of rib is mainly of use in the single cavity type. The incision should be made through a point where the pleurae are adherent. If no adhesions exist, the operation should be done in two stages; first, incise down to the pleurae and pack; later, when adhesions have formed, remove pack, incise into abscess, and drain until cavity closes.

Graham of St. Louis favors lobectomy with cautery. It certainly has a field of usefulness in cases that fail to respond to other treatment.

In using pneumothorax, avoid injuring the lung by too high pressure, since superficial abscesses tear easily. It may be difficult to use surgical drainage after artificial pneumothorax, owing to the lack of adhesions between the pleurae at the elective point. In this case, the air should be removed, the pleura sutured securely before drainage is done, or the two stage operation employed as advised.

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SURGERY OF THE KIDNEY*

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The cystoscopic and allied methods of examining the urinary tract have resulted almost in exact diagnoses of surgical lesions of the bladder, ureter and kidney. Visualization by the cystoscope of the interior of the bladder together with roentgenograms, cystograms, ureterograms, and pyelograms, reveals to the competent interpreter deviations from the normal which constitute most trustworthy signs of anatomic anomalies and of early surgical lesions as well as of the advanced and extensive surgical lesions of the urinary tract. Tests of renal function have been available sufficiently long to have proved their worth as a guide to the time and method of treatment and as a means of relative prognosis.

Exact methods of differentiation of lesions of the urinary tract from intra-abdominal lesions are available and indispensable in accurate differential diagnosis. The symptoms of intra-abdominal disease and those of disturbances of the urinary tract are often sufficiently atypical not only to lend confusion to diagnosis, but to be entirely misleading. At times, by virtue of referred pain, the acute seizures from gallstones, and renal and ureteral stones may be clinically indistinguishable. The frequency with which the appendix and often the gallbladder is removed for symptoms that have been produced by ureteral or renal calculus emphasizes the necessity of urologic investigation if there is doubt regarding the accuracy of diagnosis.

The presence of roentgenographic shadows in the region of the urinary tract, and the presence grossly or microscopically of red blood cells and pus cells should establish the necessity for thorough and efficient urologic examination. The differential diagnosis of many abdominal tumors is incomplete without pyelographic interpretation of the question of intrarenal or extrarenal involvement. Anomalies of the urinary tract often obscure symptoms that are usually readily understood following thorough urologic investigation.

The interpretation of urologic observations has become so accurate that diagnostic exploration of any part of the urinary tract is rarely necessary. It is obvious that in the considera-

tion of renal surgery, urologic diagnosis is most important.

SURGICAL ANOMALIES OF THE URINARY TRACT

The principles of renal surgery have become well established and competent urologic diagnosis usually determines clearly the surgical indications. However, the methods of managing a number of surgical lesions of the kidney lack uniformity. There are many anatomic anomalies of the kidney, but anomalous blood vessels, the horseshoe kidney and reduplication of the pelvis are of surgical importance and worthy of consideration.

The anomalous blood vessels, while presenting many variations, are of no particular concern, aside from their anatomic interest, unless they cause mechanical interference with the emptying of the renal pelvis.

The horseshoe kidney and the ectopic kidney often possess anomalous vessels which at times in their course to or from the kidney obstruct the ureter or pelvis of the kidney sufficiently to produce intermittent hydronephrosis. Likewise the anatomically normal kidney with accessory vessels to the lower pole often becomes obstructed at the ureteropelvic juncture, resulting in intermittent or progressive hydronephrosis. Considerable difference of opinion exists regarding the mechanism by which accessory vessels to the lower pole of the kidney produce hydronephrosis; however, operative observation reveals conclusive evidence of true mechanical obstruction (Figure 1). It would seem that simple division of the obstructing accessory vessels, if true mechanical obstruction really is the mechanism by which anomalous vessels produce hydronephrosis, should be sufficient to relieve the hydronephrosis; but experience has shown this to be inadequate, particularly if the hydronephrosis is severe. That simple ligation of obstructing accessory vessels does not allow recession of the renal pelvis may be accounted for by the loss of the resiliency, elasticity and expulsive power of the renal pelvis occasioned by intermittent or continuous and progressive dilatation, beyond the power of recovery. At any rate experience has shown that simple division of such obstructing accessory vessels is inadequate for restoration of renal function.

To avoid the sacrifice of kidneys possessing a fair degree of function, various plastic operations on the renal pelvis have been devised, none of which has been eminently successful; in most instances subsequent nephrectomy was necessary. Usually when the diagnosis of hydronephrosis

*Presented before the Johnson County Medical Society, Iowa City, July 6, 1927.



FIGURE 1. Large hydronephrotic sac resulting from obstruction by an anomalous vessel to the lower pole.

has been established the process is well advanced beyond the stage of palliation and is successfully treated only by nephrectomy.

The horseshoe kidney is heir to all renal lesions, and the recognition of the pathologic change in such kidneys has been a diagnostic achievement of recent years of great clinical and surgical importance. The relative inaccessibility of the horseshoe kidney because of its mesial posterior position and its immobility exacts precise technic in the management of its surgical lesions. The almost invariable presence of an anomalous blood supply may hazard the surgical procedure; however, accurate visualization of the operative field through an adequate posterior incision usually insures against the surgical accident of operative hemorrhage. Stones in the pelvis of an anatomically normal kidney are most readily removed through the posterior wall of the renal pelvis; however, the partial inward rotation of each half of the horseshoe kidney and the extremely anterior position of the pelvis allows accessibility to stones in the pelvis or calices only through the anterior wall of the

renal pelvis. The isthmus of the horseshoe kidney is variable in width, but it is usually thin and relatively avascular, facilitating readily enough partial nephrectomy when hydronephrosis, tumor, and so forth, are present.

The double kidney or complete reduplication of the renal pelvis usually possesses a definite avascular boundary and barrier between the renal units, each with its own blood supply. Benign surgical lesions may involve only one renal unit to the extent of complete loss of renal function without disturbance of the other unit of a double kidney. Such determinations are entirely within the realm of urologic diagnosis and are readily recognized at exploration. Heminephrectomy may be accomplished under such circumstances for the purpose of conservatism. Renal lithiasis contributes largely to surgical lesions of the kidney, and, inasmuch as lithiasis is bilateral in the upper urinary tract, in from 15 to 20 per cent of cases conservation of renal function is highly desirable. Should lithiasis occur in one unit of a double kidney with sufficient injury to that unit to require nephrectomy, heminephrectomy may be accomplished with conservation of the uninvolved unit. Likewise hydronephrosis occurring in but one unit of a double kidney may usually be dealt with conservatively by heminephrectomy.

RENAL LITHIASIS

The reformation of renal stones is possible and unquestionably does occur through the persistence of pre-existing indeterminate etiologic factors. Foci of infection, remote from the kidney, unquestionably are important etiologic factors in renal lithiasis. However, it is well known that other factors must be reckoned with and, whatever their nature, they continue to exert their influence on the reformation of renal stones, even after all demonstrable foci have been completely removed. True reformation of stones occurs rather infrequently and experience has shown that the relatively high incidence of so-called reformation of stones has in reality been the continued development of stones overlooked at the time of operation, or of particles incompletely removed, which serve as nuclei for the subsequent stone. About 40 per cent of renal stones are multiple. Surgeons of wide experience in operating for renal lithiasis have all suffered the humiliation of being unable to find enough stones at operation to account for the shadows in the roentgenogram and of having shadows persist after operation. Likewise shadows have often been found immediately

after operation when the surgeon was certain he had completely removed single or multiple stones. Multiple stones may overlies each other, casting but one shadow, and lead to the preoperative diagnosis of a single stone which the surgeon may be satisfied to remove. Overlooking one or more stones at operation is the important factor in the so-called reformation of stones. Routine roentgen-ray examination a few days after operation is the only means of distinguishing between the oversight of stones and their subsequent development.

The difficulty that the surgeon has experienced in locating and removing all multiple stones, and the occasional failure to remove all stones as depicted by early postoperative roentgenograms emphasized the need of aid in the localization of shadows at operation. Braasch and Carman, employing the principle of the localization of foreign bodies in tissues at the time of operation, devised a method of fluoroscopic examination with the kidney elevated out of the wound. The method has been invaluable in the detection of even small particles of stony material which otherwise could not have been found, and has afforded the assurance of complete removal of all stones before the conclusion of the operation. To determine definitely that the kidney is clear and free from all stones at the close of the operation, has afforded the surgeon and the patient assurance of a good surgical result, and has practically eliminated the persistence of postoperative shadows in the renal area. Fluoroscopic examination at operation has made possible the conservative operation of pelviolithotomy for multiple stones which formerly often necessitated nephrectomy.

Quimby has advocated the making and developing of films at operation as an aid in the localization of stones and for the assurance of complete removal of all stones. These methods have attained such importance in the surgery of renal lithiasis, that to insure the best results it is questionable whether one is justified in contemplating pelviolithotomy for renal lithiasis without fluoroscopic aid or facilities for the making and rapid development of films at operation.

RENAL TUBERCULOSIS

Without entering into a consideration of the diagnosis, it may be stated that the clinical recognition of renal tuberculosis has reached a high state of accuracy and infection of the kidney is readily detected early. While heliotherapy and other nonsurgical methods of treatment have been advocated and unquestionably possess some

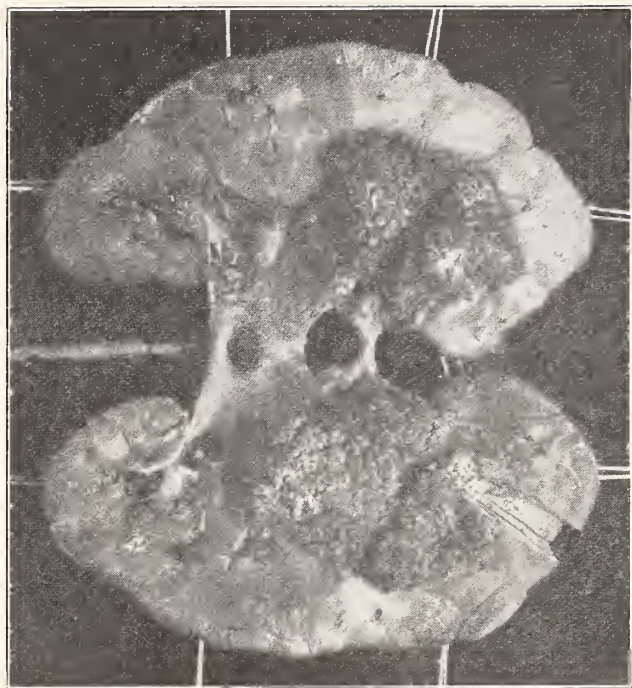


FIGURE 2. Extensive papillary epithelioma of the renal pelvis and calices.

merit, the cure of unilateral renal tuberculosis is usually not accomplished except by nephrectomy. Reservations placed on cure are dependent on the extent of the renal involvement, the presence of tuberculous cystitis, or the activity of tuberculous lesions elsewhere. Approximately 80 per cent of patients with surgical renal tuberculosis have associated tuberculous lesions; however, the latter, in the absence of general contraindications, should not deprive the patient of the benefit to be obtained from removal of the major tuberculous lesion, if it is renal and unilateral. Diffuse miliary tuberculosis is considered a contraindication to nephrectomy. The low primary mortality rate of less than 2 per cent following nephrectomy for unilateral renal tuberculosis justifies the operation even if there is moderate pulmonary involvement. Braasch has reported a mortality of 20 per cent within five years after nephrectomy with a prognosis of partial recovery of 80 per cent of patients; 60 per cent were completely cured while 20 per cent had persisting bladder symptoms. The shorter the duration of the disease and the less extensive the renal involvement, the better is the result.

Indolent healing of the wound and a temporarily persisting sinus at times follows nephrectomy for renal tuberculosis. This is usually due to incomplete removal of the diseased tissue, persisting infection in the ureter, and the institution of drainage. While subcapsular nephrec-

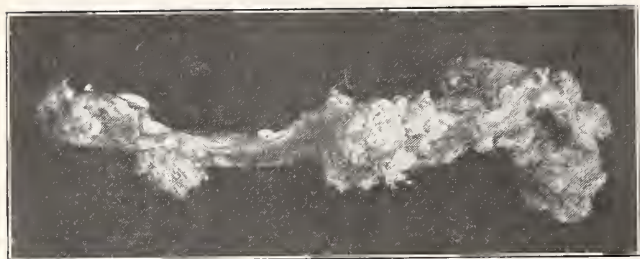


FIGURE 3. Extensive involvement of the ureter with papillary epithelioma primary in the renal pelvis.

tomy is the operation of choice it is usually inadequate in cases of extensive renal tuberculosis. The perirenal fat is often involved in extensive tuberculous pyonephrosis, particularly if a tuberculous perinephritic abscess has resulted, and its incomplete removal retards healing. The ureter is usually thickened and dilated, and if not actually tuberculous presents ureteritis, which has in many instances been the cause of a persisting sinus. In an effort to obviate a postoperative sinus of ureteral origin, various methods of treating the ureter have been advocated, including injection of its lumen at the cut end with pure phenol, actual cautery sterilization of the stump, and bringing it to the surface of the skin and threading a tube over its end to carry subsequent drainage to the surface. Walters, in a review of a series of cases in which nephrectomy had been performed for renal tuberculosis and the ureter treated by the various methods showed that ligation and sterilization of the cut end of the ureter with the actual cautery is the most satisfactory method of treatment; a sinus persists only temporarily in 25 per cent of the cases. A sinus of ureteral origin in the absence of a ureteral stricture tends to close; in most instances it is of short duration, and rarely requires ureterectomy. Stricture in the lower part of the ureter is best treated by ureterectomy at the time of nephrectomy.

The insertion of drainage tubes after nephrectomy for renal tuberculosis is as inadvisable as for tuberculous infection elsewhere. It invites secondary infection, and a postoperative sinus develops with indolent healing of the wound; closure of wounds without drainage results in a high percentage of primary healing.

PERINEPHRITIC ABSCESS

The classification of perinephritic abscess on an etiologic basis furnishes an adequate method for its consideration. Such abscesses are either of renal or extrarenal origin. Those of renal origin are caused, in order of frequency, by pyonephrosis, lithiasis, tuberculosis, and trau-

matic rupture of the kidney. Those of extrarenal origin are metastatic or occur by direct extension. Abundant experimental and clinical evidence supports the theory of metastatic extrarenal infection through the lymphatic and hematogenous pathways. The lymphatic offers a means of extension from the pelvis and genito-urinary organs to the perinephritic tissues, but the hematogenous is more often the means of extension.

Perinephritic abscesses of renal origin are secondary in importance to those of extrarenal origin. They are but incidental or secondary to the primary renal lesion of pyonephrosis, lithiasis, tuberculosis, and so forth, which are readily revealed by urologic diagnostic methods. However, perinephritic abscess of extrarenal origin often presents symptoms so vague and difficult of interpretation, and a consistent absence of positive urologic data that general sepsis may supervene before its true nature has been determined. Hematogenous infection of the kidney from acute peripheral pyogenic infections results in multiple cortical abscesses which in turn penetrate the renal capsule and form perinephritic abscess. The most common acute peripheral infections tending to result in cortical abscesses of the kidney are furuncles, carbuncles and paronychia. Urologic examination is of little assistance in the diagnosis of perinephritic abscess secondary to hematogenous cortical infection of the kidney. There is an almost uniform absence of microscopic elements in the urine. The cortical abscesses usually do not communicate with the pelvis or calices and

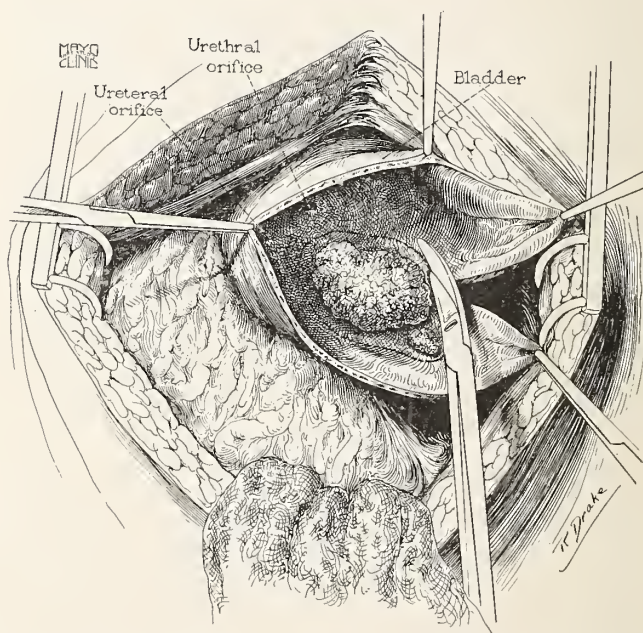


FIGURE 4. Segmental resection of the bladder for extensive involvement adjacent to the ureteral orifice by papillary epithelioma originating in renal pelvis and extending down the ureter.

pyelographic studies are of little value except in the case of a large palpable perinephritic abscess, in which a diagnosis of extrarenal tumor may be made from the pyelogram. A mass is occasionally palpable in the renal area. Localized pain is practically always present, but seldom acute tenderness. The diagnosis of perinephritic abscess of extrarenal origin is usually readily established in the absence of objective data on the basis of localized pain, septic type of fever and recent peripheral infections, if the relationship between cortical abscesses and acute peripheral infections is borne in mind.

Perinephritic abscess which is metastatic in origin usually responds to simple drainage. Rarely is nephrectomy necessary. The prognosis depends on the time-relation between its onset and the time of institution of drainage. Early simple drainage before the advent of general sepsis insures complete recovery.

PAPILLARY EPITHELIOMA OF THE KIDNEY

The results of nephrectomy for malignant disease are dependent on early diagnosis and operation. Most malignant tumors of the kidney progress by direct extension and tend to metastasize remotely which emphasizes the necessity of early recognition and treatment to insure the best results. I shall consider here only a single type of malignant tumor which differs in its progress from all other malignant renal tumors.

Primary epithelioma of the renal pelvis is encountered as one of two distinct types: the flat squamous cell and the papillary. While each is a true epithelioma, the microscopic characteristics of the cells of the two tumors are different, and even though these tumors have the same genesis, they differ materially in their degree of malignancy and their manner of growth and extension. On the basis of cellular differentiation the papillary epithelioma is less malignant than the sessile squamous-cell type, and while the latter progresses by direct invasion of tissues and tends to metastasize remotely, the former progresses by direct extension along the mucous membrane to calices and along the ureter to the bladder (Figures 2 and 3), and does not tend to metastasize remotely. Because of these characteristics the surgical principles involved differ from those of nephrectomy for all other forms of renal malignancy. Papillary epithelioma of the renal pelvis is the least malignant of all malignant lesions of the kidney, but failure to distinguish it from the other renal tumors allows its degree of malignancy to increase by sub-

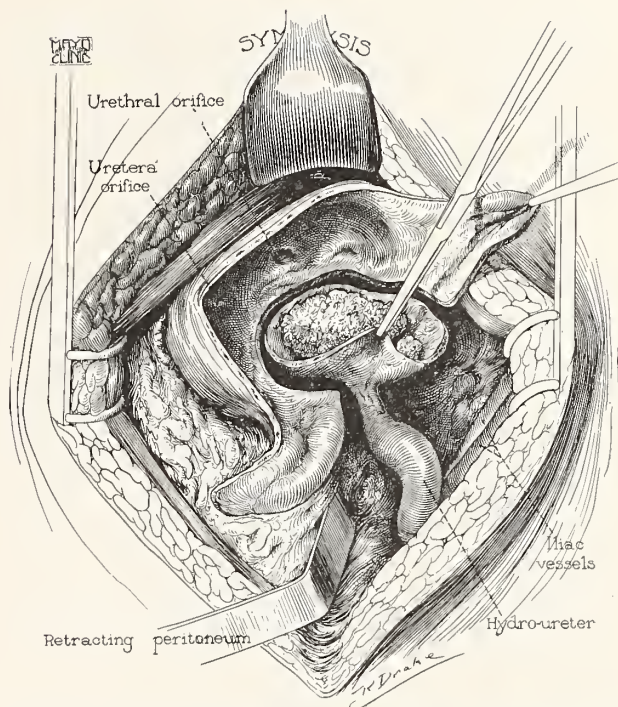


FIGURE 5. Resected segment of bladder left attached to the ureter, all of which is subsequently removed intact with the kidney for extensive papillary epithelioma primary in the renal pelvis.

sequent recurrence in the ureter and bladder, if it is only treated by nephrectomy. A recent review of cases has emphasized the necessity of procedures more radical than nephrectomy in dealing with the lesion to insure against subsequent recurrence. Progression down the ureter usually results in involvement of the wall of the bladder immediately adjacent to the ureteral orifices. This has made it necessary to perform ureterectomy and segmental resection of the bladder with excision of the entire thickness of the wall of the bladder adjacent to the ureteral orifice at the time of nephrectomy (Figures 4 and 5). The combined operation is readily accomplished with little more time and risk than simple nephrectomy and is the best assurance against subsequent recurrence.

It is obvious that surgery of the kidney embraces more than the application of the principles of surgery. To insure the best results in renal surgery demands most careful urologic examination and the closest co-operation among the urologist, clinician, surgical pathologist and surgeon.

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HEMANGIO-ENDOTHELIO-SARCOMA OF THE SPINAL CORD*

JOHN C. HANCOCK, M.D.

AND

WAYNE A. JOHNSTON, M.D.

Dubuque

In selecting this subject for this meeting I had in mind several considerations. In the first place this type of neoplasm of the spinal cord is sufficiently rare to be of interest and worth reporting. Secondly it illustrates that a diagnosis should have either in a positive or in a negative way a close basal relation to etiology. Thirdly while complicated by the occurrence of the same type of neoplasm in neighboring parts it is fairly typical of tumors of the spinal cord *per se*. Finally the diagnosis rested prominently on findings involving the use of comparatively new technique.

The case report brings out many of the essential items concerned with spinal cord tumors in general and thus incidentally illustrates the principles of treatment. The diagnosis of the particular kind of tumor must often await histological determination and even then there is not always perfect unanimity of opinions.

C. C. H., male, thirty-six years old, married, plumber, native and except for a sojourn in France during the war a resident of Iowa, has used alcohol very moderately, tobacco very freely, and denied venereal absolutely. In respect to this last he seemed too intelligent not to know about it and too honest to lie about it. His previous history was negative—his parents having died at seventy-four plus years and his only other blood relation is living and well. Previous history includes children's diseases in childhood and hay fever.

March 10, 1926, without assignable cause patient vomited breakfast. This disturbance was repeated for several days and followed by bloating of the abdomen. On one occasion while out walking the lower extremities gave way. After resting he was able to walk home. Following a negative gastrointestinal x-ray the diagnosis of plumbism was made. In the absence of any improvement he was referred to a Metropolitan group. Here no organic stomach or colon disease was found. The spinal fluid was under pressure, cloudy, and contained 100 cells per cu. m.m.—mostly lymphocytes. The Kahn test was strikingly positive but the Wassermann gave a dubious response. The summary of findings

was "disseminated patches of postero-lateral sclerosis, chronic pachy-meningitis, aerophagia causing intermittent and profound dilatation of stomach and colon, chronic plumbism, infected gums and teeth roots, chronic simple anemia. A careful regimen including diet was prescribed and a course of iodides and salvarsan recommended. Returning home the evening of the day the lumbar puncture was done he had to be helped from the train and thereafter locomotion was impaired by weakness of the extremities. This was followed by pain along the anterior aspect of the thighs particularly interfering with sitting down. Girdle pains originating at the back especially the left side on a level with the spines of the scapulæ and terminating in front below the tip of the ensiform followed the paresis. These pains were aggravated by motion as in getting into a chair and particularly 5 to 8 p. m. but also awakened him during hours of sleep. Bowel action seemed to initiate or aggravate the back pain. Paresis which seemed to follow the lumbar puncture progressively became worse and eventually paralysis. Edema of the ankles set in. The bloating and constipation previously mentioned were somewhat improved after his return home. On one occasion there had been difficulty with micturition and dysuria. During sleep at times the right hand became cold and moist while the left remained warm and dry. The iodides and salvarsan had been administered without appreciable benefit.

June 9, 1926—three months after the onset of vomiting—I saw the patient and found him well developed and fairly well nourished, anemic and at the moment not suffering. Positive findings on general examination were (1) bad teeth as

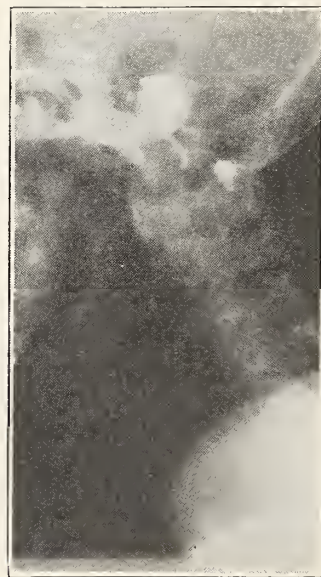


FIGURE 1. Taken directly after injection lipiodol into cisterna.

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.



FIGURE 2. One hour after injection lipiodol.

already indicated; (2) pulmonic second sound louder than aortic; (3) an abdomen greatly distended and tense with gas; (4) blood-pressure 140/70; (5) edema of both, especially left, legs and feet, tenderness distinct over fifth dorsal vertebra and slight thence to second lumbar; (6) occasional finely and coarsely granular urinary casts, and (7) an indolent ulcer $1 \times 1\frac{1}{2}$ inches in the fold of either buttock. The neurological examination showed a paraplegia of the spastic type. The sensory level indicated the location of disturbance of function as between the fourth and sixth dorsal. The abdominal reflexes were absent. Deep reflexes below the segments involved were increased. Babinski bilateral and, also, ankle clonus were positive, sphincter disturbance to the extent of incontinence both rectal and vesical was present. The blood Wassermann was negative.

In view of the evidence it seemed to me the diagnosis lay between a traumatic or a neoplastic lesion of the cord. In favor of the former was a history of some unofficial automobile and aeroplane smash-ups in France while against it—except as the exciting cause of a neoplasm—were the facts of his discharge without exceptions from the army and the long interval of freedom from symptoms between the war and the onset of the disease. In favor of spinal cord tumor—were (1) the gradually progressive loss of motor power with spasticity. It will be recalled that muscular weakness was the initial symptom and thereafter was conspicuous. This on the face of it points to a tumor on the anterior aspect of the cord. Muscular twitchings preoperative were absent. (2) The determination of the sensory level pointing to the fourth to sixth dorsal ver-

tebra localized the lesion of the cord fairly accurately considering that a spinal sensory root derives fibres of origin from three segments. (3) Pain which was conspicuous and obtrusive was of several kinds, (a) pain down both thighs early after first signs of motor weakness suggested pressure on the sensory tracts of the cord, (b) pain sharp and lancinating passing as indicated from back around to front and a dull constant ache in the back were more easily accounted for on the basis of direct involvement of sensory roots by the tumor, and (3) the back-ache due to intraspinal pressure and aggravated by motion of the spine. Change of position accentuated this type of suffering. The position of least distress was half sitting in either bed or chair. Finally the sphincter disturbances both vesical and rectal added weight to the diagnosis.

In order to develop a block of the subarachnoid space, if present, and check up the neurological localization of the lesion 2 c.c. of spinal fluid were drawn by cisterna puncture and an equal amount of lipiodol was injected. X-ray examination done directly, one, six and twenty-four hours respectively after the lipiodol injection revealed a complete and constant block at the level of the fifth dorsal centrum with partial occlusion reaching to the fourth dorsal.

Incidentally a lateral x-ray examination developed an impaction of the sixth dorsal centrum.

The spinal fluid obtained from above the block was in marked contrast to that obtained in



FIGURE 3. One hour after lipiodol injection.



FIGURE 4. One hour after injection lipiodol.

March from below. The fluid from above the block was clear, contained but four cells to the cu. m.m.—all lymphocytes. The spinal fluid Wassermann, colloidal gold, and globulin were negative. It was my purpose to do lumbar directly after the cisterna puncture but on account of the position in view of the abdominal distention and the aggravation of pain incident to change of position I desisted. As it turned out the findings would have had but academic interest.

At this time there was a trace of albumin. The white blood count was 6,000 and 9,000 respectively. The hemoglobin was 55 per cent.

August 11, 1926, under gas-ether anesthesia (Dr. Piekenbrock) at Mercy Hospital laminectomy of the fourth to seventh dorsal vertebra (inclusive) was done. The dura of the lower half of the fourth the whole of the fifth and sixth vertebra was thickened in a spindle-shaped fashion with the center reaching a maximum thickness of 1 c.m. The thickened dura was tense, injected, vascular and adherent to the cord. Above and below the area described it was normal and free. At the level of the sixth dorsal vertebra the cord was distinctly and gently curved to the patient's left. Appearing in the concavity was a tumor mass about 1 c.m. in diameter, round, compressible, smooth, dark, vascular and encapsulated. It was attached by a short pedicle to the ventro-right lateral aspect of the dura. In order to facilitate its removal the sixth posterior nerve root was cut. At this level for a distance of 1.5 c.m. downward the

cord itself seemed distinctly firmer than elsewhere. Nothing was seen of the lipiodol. The dura was left open and the wound closed in three layers.

Following operation there was moderate surgical shock. Blood transfusion (Dr. Nesler) was accomplished but only after typing fifty-six prospective donors before finding one compatible. Pain in the wound area and chest, distress in the abdomen from distention with gas, clonic contractions and sweating of the right arm, disturbed sensorium even to the extent of his being irrational occasionally, increased nervousness and headache were present at times during the first week. Gradually the symptoms ameliorated. Patient was free from pain in the back when at rest and moved his arms freely. Sutures were removed the ninth day and the wound was found healing *per primam*. At this time he identified the left foot and in response to the plantar reflex moved his right foot. The eleventh day the lower extremities began to ache like "rheumatism"—the first sensation experienced for a long time before operation. At this time muscular twitchings of the lower extremities occurred and suggested a return of function. A little later he identified and moved (slightly) each foot and leg. Sphincteric return of function was suggested by consciousness of the act of micturition and appreciation of the desire to void and in regard to the rectum he became aware of fluid entering the gut with an enema and localized pain in the rectum independent of the enema. The girdle pain had ceased.



FIGURE 5. Six hours after lipiodol injection.

During the period of two to six weeks after operation patient was considerably improved. Morphin was reduced from five or six doses daily to one or two. The appetite and with it the nutrition improved. He began to acquire the aspect of health and with it came a return of spirit and courage. September 25 he was out on the porch in a wheel chair.

Very shortly afterward but not seemingly on account of the excursion he developed a right pleurisy. Following this he soon lost the ground he had gained. Neurotrophic ulcers which had been healing became larger and new ones came. The sloughs formed more rapidly and extensively. The distribution was chiefly over the trochanters, the lumbosacral region, and the base of the side and back of the right chest with smaller ones in the flanks and toward the last in the lower extremities. The sites were often independent of pressure. The secondary anemia became progressively worse—the last count being 2,000,000 erythrocytes, 5,260 leucocytes, and 30 per cent hemoglobin. During this time a septic temperature obtained sometimes accompanied by chills and sweating. Exitus occurred November 23, 1926.

NECROPSY

This body is that of a male 5 feet 10 inches high. Marked emaciation. Edema of both feet. Atrophy of the right leg. Brown hair, moderately thick. High forehead. Brown eyebrows. Marked edema of the foreskin with erosion of the epithelium both outside and inside. Two fissures on the left lateral aspect inside. Erosion over the head of the right fibula and external malleolus, base of fifth digit, base of fifth metatarsal laterally, internal malleolus, both malleoli of the left foot and head of the left fibula. Erosion through skin $2 \times 1\frac{1}{2}$ inches just below the crest of the left ileum. This extends only to the fascia. Erosion over the left great trochanter 3×3 inches. This extends through the fascia and muscles exposing the upper aspect of the great trochanter. Erosion over sacrum extending through the skin and fascia to the sacral bone and to fascia over the left buttock and lumbar region. The area over the sacrum measures $6 \times 2\frac{1}{2}$ inches and extends for $3\frac{1}{2}$ inches upward in the right flank. Hypostatic congestion over entire back. Erosion over the right great trochanter with dry gangrene of central position. This area measures 3×3 inches and connects with another area 2×2 inches below and posterior. Both of these only extend through the skin. Area of erosion $4\frac{1}{2} \times 3$ inches over the tenth and eleventh ribs in the mid-axillary line

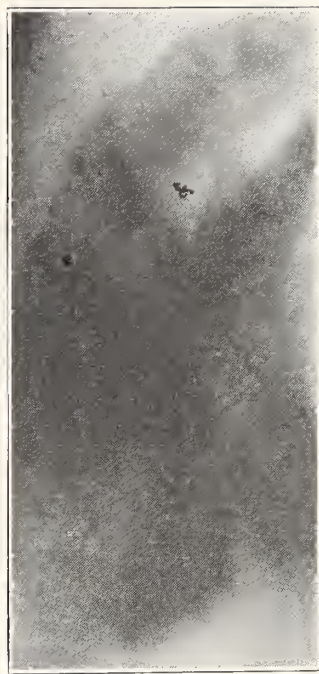


FIGURE 6. Six hours after lipiodol injection. X designates impacted sixth dorsal vertebral body.

on the right side. This extends to the ribs. Osteomyelitis of both ribs. Surrounding skin is undermined. Complete destruction of all tissues in this region. From the level of the scapular spine down to $1\frac{1}{2}$ inches below the level of the inferior angle of the scapula is a linear scar showing evidence of surgical procedure and healing by first intention.

Skull cap removed in the usual manner, no evidence of any erosion of the bone. Congestion over the left hemisphere. Considerable edema over the right frontal lobe. Brain removed in the usual manner. Congestion over both occipital lobes. Fixation of right hemisphere from embalming fluid. Left side soft throughout. Section of the brain shows no abnormality by gross examination in either the brain substance or ventricles except a very slight hemorrhage in the region of the posterior basal ganglia.

Posterior lamina of the spine removed from the head to the sacrum. Firm cartilaginous-like tissue over the region of the previous operation above the dura. Adhesions of overlying tissues to the dura. Dura opened throughout its entire length and cord was removed. Slight adhesions of the meninges to the cord on posterior aspect in the region of the operation. Small plaque of lime salt about 5 mm. in diameter and $1/10$ mm. in thickness in leptomeninges on both the posterior and anterior aspect of the cord in the region of the sixth dorsal body. The cord is somewhat soft in the region between the fifth and seventh dorsal bodies and shows a definite



FIGURE 7. Twenty-four hours after lipiodol injection.

compression in this region on the anterior aspect opposite the sixth body. No evidence of any tumor formation on the external portion of the cord. The inside of the dura throughout its entire length is moist, shiny and smooth. Beneath the costo-vertebral joint of the sixth rib on the left side is a dark granular mass the size of an almond which has the appearance of a neoplasm. This is found to connect with a larger mass beneath the pleura anteriorly of a similar type. The azygos vein in front of the fifth, sixth and seventh dorsal bodies, is dilated to fully one-half inch in diameter and within the lumen is a dark brown stringy neoplastic growth resembling in structure very much the tumor previously described. The thoracic duct is clear.

The thorax and abdomen were both opened in the usual manner. A thick plastic purulent exudate was found over the posterior aspect of the entire right lung and between the lobes. The lung itself was air-containing throughout. No opening found from the pleural cavity on the right side through the eroded area previously described over the tenth and eleventh ribs. The left pleural cavity and lung were both negative. The pericardial sac contained about 3 oz. of purulent fluid. The heart was not enlarged. The valves were all negative.

The stomach and intestinal tracts were negative throughout. The spleen is about twice its normal size and very hyperplastic. The liver showed marked fatty degeneration and is about

one-third larger than normal. The left kidney is negative. The right kidney pelvis contained pus and multiple abscesses in the cortex. Gall-bladder is negative. Bladder and prostate negative.

Examination of the fifth, sixth and seventh dorsal bodies after cutting them longitudinally shows considerable angulation posterior to the sixth dorsal body which corresponds to the region of the intradural tumor removed surgically and to the region of the lime salt plaques described above. The sixth body measures 2.05 cm. posteriorly and 1.15 cm. anteriorly. Irregular mottling of the marrow of the sixth dorsal body by blackish discoloration.

Microscopic—Liver, advanced fatty infiltration and degeneration. Brown atrophy. Miliary abscesses. Lung, acute congestion and edema. Bronchial pneumonia. Chronic purulent pleurisy on right side. Kidney, moderate cloudy swelling. Cord, advanced simple and fatty degeneration and vacuolization of the entire cord in region of old injury and hypertrophy of the endothelial cells lining the neural canal. Examination of section of spinal cord taken just below the medulla shows degeneration changes in the anterior pyramidal tract, tractus, tecto-spinalis, anterior ground bundle, Gower's tract, Flechsig tract and Goll's tract. The most extensive degeneration is noted in the tract of Gower's,

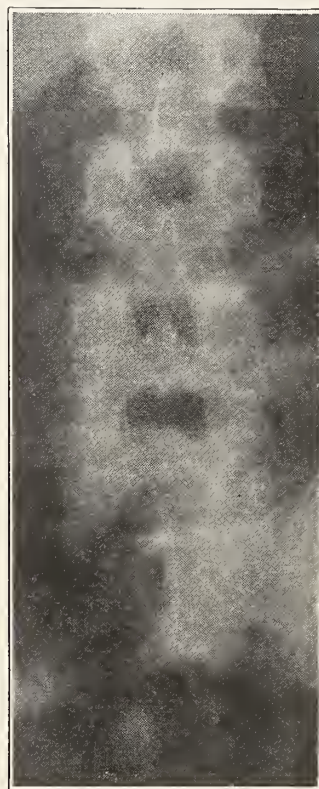


FIGURE 8. Twenty-four hours after lipiodol injection.

Flechsigs and Goll. No degeneration in the tract of Burdach. Section of cord at level of the sixth dorsal body shows diffuse degeneration throughout all of the white matter. Tumor within azygos vein, and that beneath the sixth rib shows a hemangio-sarcoma. (Hemangio-endothelial-sarcoma), similar in type to the one removed at operation. Bone marrow of the sixth dorsal body shows a diffuse infiltration of cells resembling the above tumor cells.

Summary—Compression myelitis. Hemangio-sarcoma of the azygos vein, of the tissues beneath the sixth rib near the spine on the left side, of the meninges at the level of the sixth dorsal body, and of the marrow of the sixth dorsal body. Chronic empyema. Purulent pericarditis. Purulent pyelitis of the right kidney. Multiple abscesses of the right kidney. Chronic hepatitis and splenitis. Multiple trophic ulcers of the skin.

Comment—An endothelioma originating from blood-vessels, is most unusual in this location. We can only speculate as to which mass is primary. If we consider size, then undoubtedly the large mass found in the azygos vein is primary and the others secondary. This would mean that metastases would have to take place against the flow of the blood, since the meninges, spinal bodies and tissues around the spine all drain their venous blood into the azygos vein. The metastases may have taken place through the lymphatics. With the amount of metastases in their local area, it is rather remarkable that no other metastases were found elsewhere in the body.

SUMMARY OF CASE

1. The clinical diagnosis of spinal cord tumor at or about the level indicated was established at operation.

2. There was nothing at operation pointing to involvement of other structures with the neoplastic process although the x-ray findings of



FIGURE 9. Low power of tumor of spinal cord removed at operation.

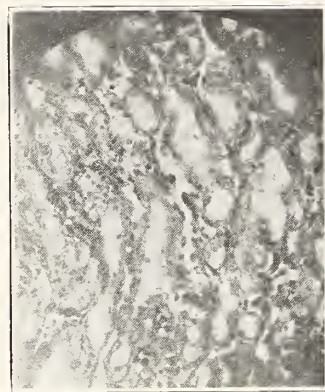


FIGURE 10. High power of tumor of spinal cord removed at operation.

the body of the sixth dorsal vertebra should have aroused suspicion at least.

3. Post-operative clinical improvement occurred and was progressive until the inter-current infection set in.

4. Necropsy findings in respect to post-operative condition of the cord were favorable for recovery.

5. The presence of the segment of transverse pressure myelitis precluded a recovery from the paralysis. This might have been different with earlier diagnosis and operation.

6. The presence of the neoplasm in the body of the sixth dorsal vertebra, the intercostal space, and the azygos vein rendered the prognosis for life bad. Here again assuming the neoplasm was primary in the cord from the pathological point of view, as it certainly was from the clinical, earlier diagnosis and more prompt operation might have effected a cure.

In connection with early diagnosis and localization of spinal cord tumors I should in conclusion like to refer briefly to the results of a study of his cases by Dandy.¹ In view of their relative and absolute frequency he contends that "given a gradually progressive bilateral loss of motor power with spasticity, the burden of proof is on any diagnosis other than a spinal tumor. This is the most likely lesion and almost the only one offering the patient relief. If there is a sensory level in addition to the motor loss, the location of the tumor is at once precisely made. Rectal, and particularly vesical sphincter disturbances, though usually appearing much later, complete the great triad of symptoms resulting from spinal tumors. Other symptoms, though important, are of lesser significance."

Dr. Wayne Johnston who has heartily cooperated in the case in respect to x-ray and patho-

1. Walter E. Dandy, M.D.: "The Diagnosis and Localization of Spinal Cord Tumors." *Annals of Surgery*, January, 1923, vol. lxxxi, No. 1.

logical findings including the necropsy will show illustrative slides and discuss the incidence and pathological characteristics of this particular neoplasm of the cord.

Discussion

Dr. Frank A. Ely, Des Moines—The scope of this paper would permit one, in discussing it, to take up almost any phase of the subject of spinal cord tumors. Personally I make no claim to expert knowledge of the pathology of hemangiosarcoma of the spinal cord, therefore what little I have to say will be largely confined to the clinical phases of spinal cord tumors. Dr. Hancock was exceedingly fortunate in his case, in having a rather definite syndrome pointing with considerable accuracy towards a complete transverse lesion. In years gone by we were led to believe that almost all spinal cord tumors are painful. I was told that if a man developed weakness and pain in one leg, with root pains about the chest, and a girdle sensation, then became weak in the other leg, these symptoms constituted a typical syndrome of a spinal cord tumor. We now know, however, that a majority of the spinal cord tumors are painless. This makes it very necessary for us not to overlook the real fundamental symptoms such as were outlined in the brief which the Doctor presented as given by Dr. Dandy. When we are confronted with a paraplegia either incomplete or complete, with any variety of sensory or motor disturbances below a given point, our first thought should be spinal cord tumor. There are many adjuncts to the diagnosis. For instance, in every case the spinal fluid should be investigated because it is well known that a blocking of the arachnoid is very frequently accompanied by yellow spinal fluid which frequently undergoes spontaneous coagulation. The cell count is low. This condition is known as the Froin syndrome. This syndrome does not necessarily indicate the presence of a spinal cord tumor, because it occurs in almost any instance in which a neoplasm either in the brain or spinal cord bulges into, or is located in, the meninges. But in about nine cases out of ten a canary-colored spinal fluid with few cells and massive coagulation is a definite indication of blocking of the arachnoid above. Of late, injections of lipiodol have been used to delineate the tumor level. This procedure is of great value, but it must be remembered that the iodine, when allowed to remain in the subarachnoid space, is an irritant and has been known to produce meningeal adhesions. With this in mind, I think every means of diagnosis should be exhausted before lipiodol is used, and that operation should follow soon after its use so that the bulk of the substance can be taken away.

The secretary of the Wisconsin State Medical Society states that the increase in state dues from \$9 to \$10 has not affected the membership rolls of the society.

THE KAHN PRECIPITATION TEST FOR SYPHILIS*

ANNA T. A. GLOMSET

I have been given the privilege of bringing before you a test for syphilis, which, in my opinion, is likely to displace the Wassermann reaction so familiar to all. The test to which I refer is known as the "Kahn Precipitation Test for Syphilis". I shall discuss briefly the development of the test, give its technic in brief, and present the reasons for my prophecy.

You will recall that it was in 1906 that Wassermann and his collaborators gave to the world a test for syphilis based upon complement-fixation. Such tests are complicated, requiring besides the serum to be tested, four ingredients: First, the specific antigen, serum from a guinea pig, serum from rabbit immunized with some kind of red corpuscles, and, finally a suspension of the same kind of corpuscles. The last three of these ingredients are unstable, and control tests must always be made to determine their potency.

Precipitation and agglutinin tests, on the other hand, are comparatively simple, involving only serum to be tested and the antigen concerned; thus, the Widal test for typhoid fever is an agglutination test. It involves only serum from the patient and a suspension of typhoid germs, which is the antigen.

It is natural that men should have wished to determine whether such a simple procedure could be applied to the diagnosis of syphilis. As early as 1907 this was done by Michaelis, who used the Wassermann watery extract of luetic liver for his antigen, believing it to contain the causative organism of syphilis. Later, when it was shown that luetic tissue was unnecessary for the production of the antigen, that, in fact, better results were gotten in the complement-fixation test by the use of the variously prepared alcoholic extracts of tissue, these, too, were used in the precipitation reactions. And it is strange, but true, that the alcoholic extract of any tissue, properly combined and sufficiently incubated with syphilitic serum, will produce a precipitate.

Michaelis, Jacobstahl, Hecht, Meinicke, Sache and Georgi in Germany, and Dreyer and Ward in England, and others, had observed this. All had diluted the antigen considerably and had used more antigen than serum in accordance with the usual precipitation procedures. These methods required incubation periods varying from eight to seventy-two hours. In 1921 R. L.

*Presented before the Polk County Medical Society, Des Moines, May 31, 1927.

Kahn, immunologist in the laboratories of the Michigan Department of Health, began investigating the Sachs-Georgi and Meinicke precipitation tests for syphilis. He soon observed that during the long incubation required, bacterial growths were produced which simulated precipitates, making an evaluation difficult. Knowing the inhibitory action of serum on bacterial growth, he decided to use as much serum as possible and to dilute the antigen as little as possible. So with concentration as his basic principle, the test which I shall briefly outline was evolved. The story of the research is told in detail in a book by Kahn, entitled "The Serum Diagnosis of Syphilis by Precipitation", published 1925. Between the years 1921 and 1925 Kahn published many papers on his various procedures which were modified from time to time. In 1923 I tried one of these modifications without entire satisfaction. His latest method is as follows:

Blood is taken as for the Wassermann, the serum separated and heated at 56° C. for thirty minutes.

The antigen, especially developed for a precipitation reaction and known as "Kahn's" antigen, is diluted about 1 to 1 with physiologic salt solution. Combinations of diluted antigen and serum are now set up in three tubes in ratios 1:3, 1:6, 1:12, and the tubes shaken three minutes, when precipitates are seen in the tubes containing syphilitic serum. Reports may be made within an hour of the drawing of blood.

By October, 1925, the laboratory of the Department of Health of the State of Michigan had performed 100,000 parallel Wassermann and Kahn tests with 98 per cent agreement, the difference being in favor of the newer test, and, from that time, that laboratory has ceased doing the Wassermann test, substituting for it the more satisfactory Kahn test. About this time, Admiral Stitt of the U. S. Navy asked his laboratory personnel to make comparative studies on the Wassermann and Kahn test. The result was entirely in favor of the Kahn test, so that in December, 1925, the Navy abandoned the Wassermann test in favor of the precipitation test.

Many serologists have reported during the last years on their experience with the Kahn test. State and municipal laboratories, notably those of New York state and city, Indiana, Ohio, Alabama, Oregon, Missouri, and the city of Detroit have reported on the comparative value of the Wassermann and Kahn tests. I shall not give you their results separately but shall quote you

the conclusions reached by thirty-five workers, conclusions received through answers to questionnaires sent out by Hopkins and Burnett of New York, compiled by them, and published in the January 29, 1927, issue of the Journal of the American Medical Association. The conclusions are based upon 135,000 comparative Kahn and Wassermann tests. I shall read directly from the Journal.

1. The present technic of the Kahn test is superior to the earlier technic.

2. The results obtained by the Kahn test (present technic) correspond to those of the Wassermann test, in a large majority of cases. Either test is negative in isolated cases of syphilis and positive in instances in which the serum reaction is the only evidence of syphilis.

3. A small number of Wassermann-positive serums give negative Kahn reactions.

4. A slightly larger number of Wassermann-negative serums give positive Kahn reactions.

5. The Kahn test is somewhat more sensitive than the Wassermann in primary syphilis and more persistently positive in many treated cases.

6. The main disadvantage of the Kahn test is its failure in a few cases showing a definitely positive Wassermann reaction.

7. The main advantages of the Kahn test are comparative simplicity of procedure, rapidity of obtaining results, its usefulness with anti-complementary serums, and the fact that it reveals a reaction in some cases in which the Wassermann reaction is negative or doubtful.

Through the kindness of Mrs. Drips of the Broadlawns General Hospital laboratory, I have been able to do 100 comparative Wassermann and Kahn tests, on blood collected by her. It is just to say that some of the Wassermanns were done in my laboratory, the others at the state laboratories.

I found virtual agreement between the two tests with the difference in favor of the Kahn test.

Comparative Wassermann and Kahn Tests on 100 Specimens of Serum

Seventy-nine negative by both tests.

Fourteen positive by both tests.

Ninety-three agree.

One positive by Wassermann—negative by Kahn.

Six negative by Wassermann—positive by Kahn.

Of these six cases which were negative by Wassermann and positive by Kahn, one was a case of abortion and five were treatment cases. One of the cases positive by both methods was a private patient with diseased turbinate, the Wassermann giving a 1-plus reaction, while the Kahn gave a 4-plus reaction. The one case,

positive by Wassermann, negative by Kahn, was one of skull fracture which made rapid recovery. One of the negative cases was interesting. The patient had gone through the clinic at Rochester. A Wassermann had been done and reported positive. The doctor in charge of the patient told him that the laboratory was likely mistaken and that he should have another test made. A Wassermann done at the laboratory of the Iowa State Board of Health proved anti-complementary. The Wassermann done in my laboratory was also anti-complementary, but the Kahn test was negative favoring the assertion of the Mayo Clinic physician.

Because the Kahn test is specific for syphilis;

Because it is more sensitive in treated cases and in early ones, than the Wassermann reaction;

Because the Kahn test requires but one reagent, the antigen, a stable substance, to the Wassermann's four, thus decreasing chances for error;

Because the Kahn test can be performed more quickly than the Wassermann, and a report made within an hour of the drawing of blood;

Because the Kahn test is uninfluenced by complement and therefore proves the presence or absence of syphilis in anti-complementary sera;

Because spinal fluid may be examined by the Kahn test;

Because more than 400,000 comparative Wassermann and Kahn tests have been made to the satisfaction of many workers;

Because in my own hands the Kahn test has proved simple and reliable, I have concluded that after July 1st, I shall cease doing the Wassermann test in my laboratory, substituting for it the Kahn test.

I am happy to state that on account of its comparative ease of performance, I shall be able to make the test for a fee of three dollars.

At the present time I shall report results, positive or negative, leaving the evaluation of the severity of involvement to the clinician who knows the history of his patient, and who sees the clinical evidences.

According to the Journal of the American Medical Association the Yale-in-China Medical School has closed under the continued disturbances in China. The associated hospital, up to March, continued to function.

Since the death of Dr. W. E. Musgrave, Dr. George H. Kreso of Los Angeles and Dr. Emma W. Pope of San Francisco, have been in charge of editing and publishing "California and Western Medicine" Journal.

IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines
Commissioner, State Department of Health

PREVALENCE OF COMMUNICABLE DISEASES

During the thirty days ending December 20th, the communicable diseases which have been chiefly prevalent are—smallpox, chickenpox, scarlet fever, diphtheria and mumps.

Smallpox and chickenpox have been co-existent in several places, and have accordingly lead to considerable confusion in the minds of the laity and to some extent also in the minds of some of the profession. We are accordingly making special mention of the points of differential diagnosis between these two diseases, in these notes.

Poliomyelitis, as expected, subsided very rapidly after the first of November. The only place where there was a significant outbreak during the latter part of November and the early part of December was in and near Bussey. Dr. A. V. Hardy, epidemiologist (University) who investigated this epidemic, reports that there were at least six, but more probably, twelve cases. There were two deaths. Considering the small size of the place, this represents the most severe outbreak experienced in Iowa in 1927. Waterloo with a total of fourteen well defined cases and four deaths is the outstanding place in the state regarding total number of cases.

The storm of measles which prevailed in more than half of the counties during the first half of 1927 has almost entirely subsided. Of interest is the fact that Ringgold, where there were but few cases early in the year, experienced a rather severe outbreak in December.

During the winter we may, of course, expect an increase in colds and pneumonia.

DR. WALLACE LEAVES

We note with regret that Iowa is to lose the service of Dr. J. W. Wallace. The allurements of a marked increase in salary have lead him to accept a position with the American Public Health Association, as one of its field representatives. His work will consist chiefly of health survey and consultation service in various cities and states.

Through the State Department of Health, Dr. Wallace rendered the state very fine service. He first came to Iowa five years ago, as a loan to the state by the International Health Board. After serving here for a year he was sent by the International Health Board to Utah. After remaining there for two years, he returned to Iowa.

Since July 1, 1927, he has been deputy commissioner of the department.

Dr. Wallace was born in Canada, received his academic and medical degrees from Queen's University, Ontario, and his public health degree from Harvard University.

Since definitely identifying himself with public health work, he has had exceptional opportunities of studying different phases of it. Joining up with the International Health Board he was sent around to different states to observe and assist in different lines of work. This gave him an opportunity to spend time in North Carolina, Alabama and Virginia.

In Utah, he carried out what was up to that time the most extensive goiter survey that has been made anywhere in the U. S. A., and perhaps in the world. The results of the survey as recorded and written up by Dr. Wallace have just been published by the Utah State Board of Health. Dr. Wallace has also quite recently drawn up an outline sanitary code for cities and towns of Iowa.

At the present time he is directing a most comprehensive program of protection against diphtheria in the state.

Dr. Wallace will be greatly missed. We shall hope that, some time, he will come back to us. Meanwhile, the best wishes of Iowa will go with him in his new field of work.

The following two notes relative to communicable diseases were contributed by Dr. Wallace.

THE CAMPAIGN AGAINST DIPHTHERIA IN IOWA

"No program of prevention has ever awakened so much interest or enthusiasm in our community as the diphtheria prevention program", writes a citizen to the State Department of Health from one of our county seats in the western part of the state. This letter might be taken as typical of the experience of many places, for already (December 20) 274 places in the state have completed the program and 94 others are at work on it, planning to complete the program when school reopens after the Christmas holidays.

A little time ago Johnson County Medical Society put itself on record as favoring a program of immunization for the whole county, more recently Hardin and Madison County Societies have each done the same thing.

In a program that was started in the schools, because the schools made readily accessible very large groups of children, it is well that physicians should remind people that it is the preschool child in particular that should be protected against diphtheria, and that the wall of defence

will be incomplete unless parents are urged to take all preschool children over six months of age to the physician's office for preventive treatments of toxin-antitoxin. The infant when born has considerable transmitted immunity to diphtheria, an immunity that will almost completely vanish by the time the infant is six months old. The preschool group must therefore be included to make the program airtight because more deaths and more cases occur among the preschool group than in any other group of an equal number of years, in fact 80 per cent of all cases and 90 per cent of all deaths from diphtheria occur in children under ten years of age. Again, the benefits of giving toxin-antitoxin early have been demonstrated from the standpoint of producing immunity in the child. When toxin-antitoxin is given children under five years of age, it has been found that almost all given one series of doses develop definite immunity, at least 96 per cent of them. If the giving of the toxin-antitoxin is delayed till the child is between five and twelve years, the percentage of definite "takes" is less, being about 85 to 90 per cent.

Of the ninety-nine counties in the state, ninety-eight of them have already at some point or points in the county made a start on the program and as this is being written, a letter comes in from a physician in the ninety-ninth county saying that he is starting a program in his town, so that we can now sing "there are ninety and nine that safely lie in the shelter of the fold, and none that are out in the fields away far off from the gates of gold" at least so far as making a beginning is concerned. While Parent-Teacher Associations, school boards, superintendents, nurses, and others are responsible for initiating the program in many places, there is no group that has contributed more largely to the success of the program in the schools than the physicians. They aided by publicly addressing groups of parents, by commending the procedure in private conversation, by giving advice to those promoting the program, by writing articles for the newspapers and above all, taking part in the administration of the toxin-antitoxin, often for very little remuneration. It is hoped that they may be partly, if not adequately, rewarded for their services through this educational program which will result in the majority, if not all, of the parents taking their preschool children to the physician for individual and community protection.

SMALLPOX VERSUS CHICKENPOX

As smallpox is occurring at many different points in the state at the present time, and as

concurrent with this, many cases of chickenpox are reported in the same community, there have in a number of instances, been differences of opinion among physicians as to the diagnosis.

So far as the protection of the public is concerned, where there are cases of smallpox known to exist in the community, it is a good rule to regard all questionable cases as cases of smallpox and put them under temporary quarantine until a definite diagnosis can be established.

As an aid to a differentiation between the two diseases, it is well to be reminded that the distinguishing features fall mainly under four heads, viz., the individual lesion, the distribution of the eruption, the course of the disease, and the inoculation tests, the first two of which are always readily available. It may be worthwhile to reproduce from a recent article the main differentiating points as set forth by Dr. J. P. Leake of the U. S. Public Health Service, who modifies slightly the table of differentiation as given by Dr. T. F. Ricketts.

Smallpox

(a) Favors prominences, extensor surfaces, and surfaces exposed to irritation; tends to avoid protected surfaces, flexures, and depressions.

(b) The forearms and wrists have a thicker eruption than the upper arms.

(c) Most abundant on face, most scanty on abdomen and chest.

(d) More abundant on the back than on the abdomen.

(e) More abundant on the shoulders than across the loins, and on the chest than on the abdomen.

(f) The eruption favors the limbs and generally the arms next to the face.

(g) Except when modified naturally or by previous vaccination, the lesions are deep-seated and have an infiltrated base.

(h) The solitary lesions on the more protected parts of the body are generally circular in outline.

(i) The lesions tend to be all of the same sort at the same time, or if they are different, the smaller the lesion and the nearer it lies to the face the more advanced in development it should appear to be. In cases of modified smallpox the lesions are likely to vary greatly in size.

Chickenpox

(a) Is distributed indifferently in general, though not infrequently the eruption is especially thick over some particular area of the skin where there has been irritation.

(b) The proximal part of the limbs have more of the eruption than the distal.

(c) The abdomen and chest are covered as thickly as the face, or more thickly.

(d) The abdomen has as many lesions as the back.

(e) The distribution is indifferent as regards these regions.

(f) Tends to avoid the limbs.

(g) Unless they have become infected, the solitary lesions on the more protected parts of the body are superficial and the base is not infiltrated, so that the entire lesion tends to collapse on pressure.

(h) The lesions frequently have an irregular outline; when they lie near a flexure they are apt to be oval or elongated.

(i) Lesions at various stages of development may be found simultaneously, irrespective of their location or size.

"The course of the disease with the gradual but continuous progress of each individual lesion is perhaps the most definite criterion in smallpox diagnosis, but, unfortunately, requires prolonged observation."

Where there is special difficulty of diagnosis and where laboratory facilities are available, "the inoculation of a rabbit's cornea with the contents of the vesicles or pustules, followed by enucleation of the eyeball forty to seventy-two hours after inoculation, fixation in strong sublimate alcohol, and examination for the characteristic whitish papules and the microscopic Guarneri bodies in the corneal tissue (Paul's test), is the most useful laboratory procedure in the diagnosis of smallpox".

TO VISIT EUROPEAN MEDICAL CENTERS

A splendid opportunity to enlarge our knowledge of special branches of the profession is offered by visits to the European centers which have been arranged by the American College of Physical Therapy, the International League against Epilepsy and the American Psychiatric Association.

The purpose of these visits is to obtain by personal contact a comprehensive idea of what is taking place across the water and these societies cordially extend to the entire medical profession an invitation to participate.

Perhaps the largest party to go abroad will be the American College of Physical Therapy. This group will sail from New York on May 26, 1928. The epileptologists and psychiatrists will precede them, sailing on March 17.

While in Europe psychiatrists will visit several of the leading clinics, including the famous "Bethel Colony of Epileptics", in Bielefeld, Germany. At various stages of their journey clinical discussions will be held. At these meetings leading specialists in psychiatry will address them.

The high point of physical therapy tour will be the visit to Prof. Rollier's famous hospital in Leysin, Switzerland. This is the most famous clinic of its kind in the world, and where Dr. Rollier conducted his first experiments with heliotherapy.

The Journal of the Iowa State Medical Society

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Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVIII

January, 1928

No. 1

During the first week in December two rather interesting medical meetings were held in Omaha, one under the auspices of the Chicago, Rock Island & Pacific Railway Company, and the other known as the Western Surgical Association. These associations have no definite relation to each other, except that each body discusses surgical matters, and as so many surgeons residing in the territory served by the Rock Island road are members of both associations that it becomes convenient and economical for one to follow the other. There are so many associations of more or less national character meeting during the months of October, November and December, that some plan of cooperation might be profitably adopted. Of course the membership of these associations is quite different, yet a certain number would be inconvenienced to a degree.

Dr. Plummer, chief surgeon of the Rock Island system, found it quite convenient to meet at the Fontenelle Hotel at Omaha, Tuesday and Wednesday, December 6 and 7. The attendance was large. The program was so arranged as to bring out a rather extensive discussion in orthopedic surgery. The discussion of injuries and diseases of the bones and joints and the correction of deformities is a subject of such great interest and importance to railway companies, that chief surgeons find it particularly desirable to arrange leading papers for discussion in orthopedics as a basis for discussion by the general surgeon practicing in large and small towns. Dr. Plummer,

together with other chief surgeons, have found the plan of bringing together the surgeons of the system annually for study and social intercourse, of material advantage. On this occasion clinics were arranged at the Nebraska University Hospital for the second morning session and were of special interest and profit.

One of the special features which makes medical organization profitable in all branches is the social annual function of sitting down together and extending friendly greetings, in which "shop" is for the moment laid aside and explaining why we are doctors. This the railroads realize and extend a complimentary dinner. To add to the interest of the occasion, especially selected speakers are chosen. The Omaha banquet was notable for the character of the speeches. We regret that we are able only to mention them. The afternoon program of the second day was equally interesting. At the close of the last session, the association adjourned to meet in 1928.

THE WESTERN SURGICAL ASSOCIATION

On the morning of December 8th a new group of surgeons gathered at the Fontenelle for the annual session of the Western Surgical Association. The small group of members of the previous association who were members of both, appeared one by one. The writer with no present feeling of responsibility, appeared in due time. Dr. W. W. Grant of Denver, Dr. S. C. Plummer, Chicago, and Dr. Orr, Kansas City, Missouri, came a little later. Dr. McKinnie, Colorado Springs, president, and Dr. Ritchie, secretary, St. Paul, were a day early to prepare for the meeting. Dr. Coffee, Portland; Dr. Kellogg Speed, Chicago; Drs. Balfour, Henderson and Verne Hunt, Rochester; Fay of Des Moines, and Dr. Bendixen, Davenport. A rather large group appeared in due time from the Great Lakes to the Pacific Coast and from the Ohio river to Winnipeg, a distinguished group, indeed.

Dr. Lockwood and a group from California, also a group from Oregon. There were men from Denver and Oklahoma, including four from Iowa. There was Dr. James C. Case of Battle Creek, the distinguished roentgenologist and surgeon. The program was a full one and included a considerable group of scientific papers, a notable one was by Dr. Archibald of Montreal on "Abscess of the Lung". We could not refrain from thinking of a paper we published in the first volume of the Chicago Clinical Review more than forty years ago, and a paper we read at the Columbus meeting of the American Medical Association. The paper published in the Chicago

Clinical Review was listed by Dr. J. B. Murphy in his collection of operated cases of abscess of the lungs, American cases twenty-five and of the world cases as seventy-six. We had at that time no x-ray and located the pus by aspiration after five attempts passing in a large tube between broad ligament forceps.

The papers before this session were of high order of excellence and fully discussed.

The annual banquet was presided over by Dr. Jabez Jackson, Kansas City, in his usual eloquent manner. Dr. McKimme, Colorado Springs, read his President's Address, which was of real value. Dr. W. W. Grant gave a short address, reviewing his early relation to Lord Lister as a student. The following morning the session was renewed. Every year shows more clearly the high character and importance of this association.

The 1928 session will be held in Chicago. Dr. Kellogg Speed was elected president; Dr. Richie, St. Paul, secretary.

THE PASSING OF THE COUNTRY DOCTOR

From many sources we hear the cry for more country doctors and more general practitioners. Now from the National Grange comes an urgent request.

In a recent number of the Chicago Tribune, Mr. Henry Caton, Master of the Ohio State Grange, placed a resolution before the National Grange asking the American Medical Association to aid in reforming the present system of medical education. The American Medical Association has had this question under consideration for a long time and have not yet been able to reach a definite conclusion as to what may be done.

It appears to be a definite fact that men in the medical profession are governed by the same business principles that govern other business men. The medical practitioner has made certain investments with a view of preparing himself for a gainful practice and if in a country community the rewards of a practice are not adequate to secure a comfortable living and make provision for the future, it becomes necessary for him to make certain changes, which may be the giving up of an unremunerative country practice for a practice in a large town, or the abandoning altogether a general practice and taking up a specialty. In certain states and communities special provisions are being made to supplement the fees naturally coming to him in due line of practice, so as to give him a comfortable living and some-

thing more. These efforts have been more or less successful according to the generosity of the community, and the acceptance by the doctor himself.

These provisions have been too limited to meet the general demand that is being made to secure a competent medical practitioner. There has been much discussion among the medical profession as to a change in the plan of medical education. It has been held that shorter terms of medical training will qualify a group of practitioners who are willing to set themselves up as second rate doctors. It has been held, that it would be quite impossible to secure a sufficient supply of medical practitioners willing to place themselves in such a professional light. It has been held also, that the general public would seriously object to being dependent upon medical practitioners who have only an inferior training, and therefore be quite unwilling to employ doctors classed as second rate, however good they may be, hence the doctor would fail in the plan of adequate compensation.

It may be worth while for committees on medical education to formulate and recommend a course up to a minimum standard for general practice.

MEDICAL LIBRARIES

From time to time we have called attention to the circulating feature of the Iowa State Medical Library, which is able to place in the hands of the profession books and journals often beyond the reach of many practitioners. We realize the great cost of medical literature which often discourages an attempt to keep in touch with the rapid progress of present day medicine.

Our attention is called to the difficulties which confront the medical practitioner practicing in communities removed from medical libraries by reading an editorial on this subject in the Northwest Medicine, which is reproduced in part.

"After graduation from medical school and a period of hospital service, the great majority of physicians settle for practice in localities more or less distant from sources of medical information, where they are out of touch with the leaders of the profession. Left to their own resources and able only at intervals to visit the medical centers, they are dependent on medical literature for information regarding medical progress and the means of keeping up to date in their professional experience. Since no individual can hope to be thoroughly supplied with journals and text-

books, the only means of accumulating this source of knowledge lies in the medical library, which is capable of supplying the needs of the profession within a certain radius.

"The prevailing method of sustaining such a library is provided either through the supervision of the local medical society, whose members are assessed an annual amount for development and maintenance, or it is established and controlled by a library association, whose members voluntarily contribute certain sums in the form of periodical dues. One difficulty with the first plan is the inherent objection on the part of many physicians to being assessed for an object in which they profess no personal interest. Under the second system the institution is supported by those individuals who have an earnest purpose in its maintenance. Whichever plan may be adopted, as the library develops, more funds are demanded than can be obtained from its medical supporters. The experience of all worthwhile libraries has shown that adequate expansion can be secured only through interesting laymen of scientific and philanthropic dispositions, who may be persuaded to endow the library that it may possess a permanent location, and additional funds may be provided for building purposes, literary expansion and expenses incident to maintenance on a larger scale."

HISTORY OF MEDICINE IN TEXAS

The Texas State Journal of Medicine calls attention to the importance of preserving documents and data pertaining to the history of medicine in that state. It is to be noted that every activity is represented in the public records, not only in relation to public service as individual citizens, but also in relation to the profession or calling he represents. Most things that pertain to medicine and medical activities are thrown aside as of no particular value.

Scattered through the medical literature of our own state (Iowa) are records of contributions to medicine. In pioneer days early adventurous men of the medical profession came into the state and contributed to its development and upbuilding. Later may be found the records of contributions to medicine and surgery. It is gratifying to the student of medical science that the spirit of professional enterprise is spreading through the states. Iowa began this work many years ago and has now a volume ready for binding, covering the period from 1820 on.

LANGWORTHY CANDIDATE FOR CONGRESS IN THIRD DISTRICT

The many friends of Dr. Henry G. Langworthy of Dubuque, Iowa, have heard with interest the announcement of his candidacy for congress in the third Iowa district on the republican ticket, at the June primary next year, June 4, 1928.

Dr. Langworthy is well known over this state, not only for his professional interest in the State Medical Society and as a prominent eye and ear specialist, but also as organizer of the Foundation Fund and treasurer of the Inter-State Post Graduate Assembly of North America. The Doctor's activity in organizing day schools for the deaf in Iowa is also well known. It is not often that a physician takes a real interest in politics, and with a few more physicians in congress, instead of a preponderance of lawyers over all other classes, a medical man would have the opportunity at least of serving the profession and the people in many capacities not open to everyone.

GOVERNMENT HOSPITALS NEED LABORATORIANS IN BACTERIOLOGY AND ROENTGENOLOGY

The United States Civil Service Commission has announced that hospitals of the United States Public Health Service and the Veterans' Bureau throughout the country are in urgent need of laboratorians in bacteriology and roentgenology and that applications for the positions will be rated as received until January 7, 1928.

Salaries are as follows:

Laboratorian (Bacteriology)—Public Health Service, \$1,320 to \$2,100; Veterans' Bureau, \$1,860 to \$2,400.

Assistant Laboratorian (Bacteriology)—Public Health Service, \$1,080 to \$1,320; Veterans' Bureau, \$1,500 to \$1,860.

Laboratorian (Roentgenology)—Public Health Service, \$1,800 to \$2,400; Veterans' Bureau, \$1,860 to \$2,400.

Assistant Laboratorian (Roentgenology)—Public Health Service, \$1,080 to \$1,800; Veterans' Bureau, \$1,500 to \$1,860.

The lower salary named is the entrance salary in each instance. Higher salaried positions are filled through promotion.

Appointees to the Public Health Service are also allowed quarters, subsistence and laundry. Appointees to the Veterans' Bureau are not allowed quarters, subsistence and laundry in addition to salary, and when they are furnished by that Bureau a deduction therefor is made from the salary.

Applicants will not be required to report for examination at any place, but will be rated on their education, training and experience, as shown by their sworn statements and corroborative evidence.

For full information and application blanks (form 2374) apply, stating the title of the examination desired, to the secretary of the local board of United States civil service examiners at any first class post office, or to the United States civil service district secretary at Boston, Massachusetts, New York, New York, Philadelphia, Pennsylvania, Washington, D. C., Atlanta, Georgia, Cincinnati, Ohio, Chicago, Illinois, St. Louis, Missouri, New Orleans, Louisiana, Seattle, Washington, San Francisco, California, or Denver, Colorado.

AMERICAN COLLEGE OF SURGEONS: WINTER CRUISE

The American College of Surgeons is taking its Fellows on an official visit to the Medical Congress of South Africa. I extended officially on behalf of the government of the union of South Africa a warm invitation to our country, when recently in attendance at your annual convention.

South Africa is a remarkable country of light and shadow; you will find the highest medical talent side by side with the primitive art of the witch doctor: up-to-date hospitals, fully equipped with the latest surgical appliances, are cheek by jowl with Kaffir Kraals where age-old primitive practices by black medicine men are still carried out: a stone's throw from the modern city of Johannesburg with its comfortable hotels, up-to-date shops and theatres, you will see thrilling barbaric war dances organized to keep the half a million dusky mine workers on the Rand from blood letting in other directions. These are but few of the many fascinating contrasts which this interesting "Volendam" trip will present to you.

The hospitality which will be extended to you by the medical profession in South Africa will warm your heart, and further assure you how far-flung is the noble profession of medicine. You will be intensely interested in what your fellow surgeons have accomplished in this new but ever old country. The numerous and peculiar accidents which occur daily in an eighty mile field of underground work in the great gold and diamond mines necessitate operations which, in many respects, are unique.

At the same time in this ancient land, famous for its traditions of native folk-lore, its legendary history, etc., you will enjoy luxurious travel with real modern comfort. The country is redolent with romance of diamonds and gold, with the charm and roar of the largest waterfall in the world, with quaint Kaffir Kraals, and with the customs and mysticism of the African negro. All these, with the remarkable mountain scenery and beauty of the historic Cape of Good Hope, provide high lights of travel which, combined with the warm hospitality of my government and of our medical profession, will make you appreciate that the trip by the "Volendam" is truly unique in interest and advantage.

The South African Medical Association's annual Congress at Bloemfontein has been specially ar-

ranged to suit the arrival of the American surgeons. Together with the government of the union of South Africa, they have requested me to extend to each Fellow of the American College of Surgeons a personal invitation to share South African hospitality.

With this further assurance to you and yours of the keen interest my government is taking in this cruise of the S. S. Volendam and of its very hearty welcome, I remain, with kind regards.

Yours very truly,

George S. Oettle, Director,
South African Government Bureau.

SOCIETY PROCEEDINGS

Buena Vista County Medical Society

The annual session of the Buena Vista County Medical Society was held November 17, 1927, at the Bradford Hotel. Following a 7 o'clock dinner a business meeting was held, at which the following officers were elected.

President, F. C. Foley of Newell; vice-president, Dr. H. E. Farnsworth; secretary-treasurer, Dr. E. F. Smith; delegate to State Society, Dr. J. W. Morrison, Alta; alternate, Dr. M. A. Armstrong, Newell; censors, Dr. M. A. Armstrong, Dr. F. C. Foley and Dr. D. A. Herron.

Minutes of the Calhoun County Medical Society

The annual meeting was held at the Hotel Brower following a banquet to members and their wives arranged by Dr. and Mrs. Eslick as a special committee. The following members and wives were present; Townsend, Herrick, Isenberg, Cooper, Norton, McCrary, Jr., Eslick, Hendricks and Van Metre. The election of officers being in order nominations were called for and Hendricks and Isenberg were unanimously chosen as president and vice-president to succeed themselves as they had only served a part term following Dr. Hutchinson's resignation. Van Metre was reelected secretary-treasurer without hearing his argument for change. It was moved that Norton be chosen for one year and Herrick for two years on the board of censors, vice Cooper whose term expired and Isenberg elected vice-president. Townsend and McCrary were elected delegate and alternate respectively to succeed themselves on account of their greater familiarity with house of delegates proceedings. It was moved and carried that the annual county dues be \$10 with extra assessment if necessary. (Dues were paid by all members present.) Dr. Eslick, mayor of Rockwell City, reported that it might be of interest to the society to hear that a government inspector who had just finished inspecting the dairies of Calhoun county, said that the local milk showed the least sediment and bacteria of any county in the state.

Suggestions as to 1928 program were asked for. Townsend felt that foreign speakers tend to draw

attendance from outside rather than inside the county, the society as a whole was not benefited. Eslick favored using Calhoun physicians on subjects they favored trading off with adjoining counties. Several members favored the open meeting inviting the public. It was suggested that no one be placed on the printed program without specific promise to be on hand. Herrick promised to be the speaker for the January open meeting at Rockwell City. Eslick volunteered for February to make up for non-appearance of this year's program.

Under the head of "My most instructive clinical experience" several gave reports, Norton reported a ruptured gastric ulcer in a patient who for a year and a half had refused surgery for suspected gall-bladder. The lesson is that one doesn't know even when he feels absolutely sure. Townsend reported in detail a rebellious diabetic where many conditions succeeded each other and where the clinic reported in writing that no diabetes existed then that it was truly diabetes. The same authority advised against surgery for chronic appendicitis which was elsewhere operated with disappearance of sugar from the urine. The final conclusion being that diabetes was due to focal infection in the appendix. McCrary reported a case of Malta fever, symptoms which lead to blood culture were severe occipital headache, loss of sleep and high temperature, diagnosed influenza until the laboratory report revealed agglutination for Malta fever. The source being occupational, the patient being a stock buyer. Van Metre reported the danger of incomplete blood count and the advisability of detailed history taking wherever possible.

After voting thanks to Mrs. Neafie, Jr., for the excellent banquet the meeting adjourned at 10 p. m.

P. W. Van Metre, Sec'y.

Cerro Gordo County Medical Society

The Cerro Gordo County Medical Society held its regular monthly meeting Tuesday, November 22, 1927, at Cerro Gordo Hotel, Mason City, Iowa.

A 6:30 dinner, as usual, was followed by an address on The Present Status of Scarlet Fever Immunization, by Dr. W. P. Larson, professor of bacteriology, University of Minnesota. This was very interesting and instructive, and coming from a man who has the subject well in hand, was greatly appreciated by the thirty-five members present.

The next regular meeting will be December 20, 1927.

E. L. Wurtzer, M.D., Sec'y.

Fayette County Medical Society

The Fayette County Medical Society meeting was held at Clermont, Iowa, November 30. A 6:30 dinner was served by Dr. Carr and committee.

Very interesting papers were given by Dr. Mercer of West Union and Dr. Cotril of Volga City.

Election of officers: President, G. N. Wassom, Oelwein; vice-president, H. S. Hazard, Arlington; secretary-treasurer, C. C. Hall, Maynard.

Linn County Medical Society

Linn County Medical Society met at Cedar Rapids, at Roosevelt Hotel, at 8:00 p. m., November 17, 1927.

Diseases of the Right Upper Abdominal Quadrant, by Dr. Charles Louis Mix, Chicago.

Buffet luncheon. Hosts: Drs. Hess, Keich, Van Winkle, Zuercher and Hasck.

Linn County Medical Society

Linn County Medical Society met at Cedar Rapids, December 7, 1927, in the Crystal room of Montrose Hotel, at 8:00 p. m.

The Unhappy Results in Fracture, by Dr. Kellogg Speed, Chicago.

Buffet luncheon. Hosts: Drs. McLaughlin, Neu-zil, Murphy, Hersch and Victorine.

Louisa County Medical Society

The Louisa County Medical Society met at Wapello, November 17, 1927. Dr. W. W. Potter read a paper on Chronic Constipation and its Treatment. Discussion, Drs. Lewis and King.

Dr. Woodruff read a paper on Causes, Symptoms, Pathology and Treatment of Hematuria and Hemoglobinuria. Discussion, Drs. Weber, Kabrick, Lewis, Mathias and others.

Dr. Lewis was elected president and Dr. Kabrick secretary and treasurer. Physicians present: Drs. Lilly, Kabrick and Higly of Grandview; Drs. Allen and Potter of Morning Sun; Drs. McGrew and Lewis, Columbus Junction; Dr. King of Lewis, Dr. Mathias of Mediapolis; Drs. Rogers, Chettum, Weber and Woodruff of Wapello.

Marion County Medical Society

The Marion County Medical Society met in fifty-fifth annual session in Knoxville Thursday, December 8. The scientific program consisted of two papers, Chronic Constipation, by Dr. E. E. Morton of Des Moines and Cardiac Conservation by Dr. F. M. Roberts, Knoxville.

Fifteen members and visitors were in attendance. The following officers were elected for the ensuing year: Dr. F. M. Roberts, Knoxville, president; Dr. Carl Aschenbrenner, Pella, vice-president; Dr. C. S. Cornell, Knoxville, secretary-treasurer; Dr. Roy Moon of Attica, Dr. C. S. Fox of Pella and Dr. H. E. White of Knoxville, censors.

Dr. J. R. Wright, Knoxville, Dr. E. C. McClure, Bussey, and Dr. Carl Aschenbrenner, Pella, were selected as trustees, while Dr. McClure was named as delegate to the state medical association meeting and Dr. H. L. Bridgman was named as alternate.

C. S. Cornell, Sec'y.

Osceola County Medical Society

The twenty-third annual session of the Osceola County Medical Society was held November 9.

Officers elected for the ensuing year: President, Dr. K. A. Sporre of Harris; vice-president, Dr. F. E.

McConnoughy of Melvin; secretary-treasurer, Dr. F. P. Winkler, Sibley.

Members present: Drs. D. G. Lass of Ocheyedan; F. Reinach, Ashton; F. E. McConnoughy, Melvin; K. A. Sporre, Harris; F. S. Hough, L. H. Heetland, D. C. Steelsmith and F. P. Winkler, Sibley.

Polk County Medical Society

The Polk County Medical Society met for its regular monthly meeting at the Fort Des Moines Hotel, Des Moines, November 29, 1927. The meeting was called to order at 7:50 p. m., by the vice-president, Dr. A. D. McKinley, in the absence of the president.

The minutes of the previous meeting were read and approved.

Dr. D. J. Glomset presented a case of Spirochaetosis of the Lung, which was discussed by Dr. H. C. Willett and Dr. R. H. Kanable.

Program

Injuries to the Upper Cervical Vertebrae—Chas. Ryan, M.D.

Precancerous Lesions of the Skin—H. C. Willett, M.D.

Dr. Ryan's paper was discussed by Dr. R. A. Weston, Dr. W. E. Sanders, Dr. Thos. A. Burcham, Dr. H. N. Anderson, Dr. H. C. Willett, Dr. D. S. Fairchild and Dr. A. D. McKinley.

Dr. Willett's paper was discussed by Dr. J. F. Auner, Dr. E. Schenk, Dr. Chas. Ryan, Dr. Geo. McCreight and Dr. J. W. Bailey.

The application for membership of Dr. R. H. Kanable was then presented to the society, having been favorably passed by the board of censors. It was moved by Dr. Burcham that the by-laws be suspended and Dr. Kanable be unanimously elected to membership. Duly seconded and unanimously carried.

The application of Dr. Ralph Bowen for membership was then presented to the society, having been favorably passed by the board of censors. Dr. Willett moved that the rules be suspended and the secretary be instructed to cast an unanimous vote of the society for Dr. Bowen. Duly seconded and unanimously carried.

The secretary gave a report on the finances of the recent meeting of the Medical Society of the Missouri Valley. He stated that after all the expenses of the meeting were paid, out of the fund collected from the exhibitors, there was a balance of \$1.16 in the bank, and asked for a suggestion from the society as to what to do with this money. It was moved that this amount of \$1.16 be added to the other fund made up from the surpluses of former conventions. Duly seconded and unanimously carried.

Sixty members were present and four visitors.

Meeting adjourned at 9:50 p. m.

L. K. Meredith, Sec'y-Treas.

Ringgold County Medical Society

The Ringgold County Medical Society held a meeting on Wednesday November 23, 1927. This meeting consisted of a double clinic; one a clinic on rheumatism, conducted by Dr. W. L. Bierring, and one on surgery of gall-stones, conducted by Dr. A. P. Stoner, both these doctors from Des Moines; there were sixteen patients present. The meeting was well attended by doctors and also quite an attendance the laity; people in this community are getting much interested in these clinics.

This was the annual business meeting of the society for the election of officers; the election resulted as follows: President, Dr. S. W. DeLong, Tingley; vice-president, Dr. E. J. Watson, Diagonal; secretary-treasurer, Dr. Samuel Bailey, Mount Ayr; delegate to state meeting, Dr. E. J. Watson, Diagonal; alternate to state meeting, Dr. Samuel Bailey, Mt. Ayr; board of censors, Dr. E. J. Watson, Diagonal; Dr. O. L. Fullerton, Redding; Dr. C. M. Walker, Kellerton.

Story County Medical Society

The Story County Medical Society met at the College Inn, Ames, October 26. It was a joint meeting between Story and Boone counties.

Dr. James Wallace of the state department of health, presented a discussion on Efficient County Health Units. Dr. E. W. Johns of the Iowa State College Hospital staff read a paper on Present Status of Infantile Paralysis.

Tama County Medical Society

Tama County Medical Society held its November meeting in Toledo, November 9. Supper was served by the ladies of the Rebecca Society, in the basement of the I. O. O. F. hall, to a company of twenty-eight, including the doctors, their wives and guests.

Dr. Frank J. Rohner of Iowa City, gave an interesting talk on The Present Status of Pernicious Anemia, and Dr. P. L. Parsons of Traer read a paper introducing for discussion a subject of vital importance, having to do with a plan of collection from people who habitually pay little for service rendered. A committee was appointed to formulate a plan of action, regarding the latter question, and officers for the coming year were nominated.

For president, Drs. Crabbe and Whalen; vice-president, Dr. A. J. Farnham; secretary-treasurer, Drs. Maplethorpe and Gessner. For censor, Dr. P. L. Parsons.

The next meeting will be held at Tama.

Van Buren County Medical Society

The Van Buren County Medical Society met at Keosauqua, November 3. There was a big attendance, 85 per cent of the members of the society being present.

Officers for 1928 were elected as follows: President, Dr. E. E. Sherman; vice-president, Dr. Roscoe

Pollock; secretary-treasurer, Dr. C. R. Russell; delegate, Dr. E. E. Sherman.

The time was taken up on general discussion on talks as follows: Pituitrin and Ergot in Labor—Dr. L. A. Coffin.

Case report—Dr. Zenella Morris.

Rheumatism—Dr. Roscoe Pollock.

C. R. Russell, Sec'y.

Southeastern Iowa Medical Society

The fifty-first annual meeting of the Southeastern Iowa Medical Society was attended by fifty physicians from this part of the state. Seven papers were presented and a dinner was served at the Hotel Burlington at 6:00 p. m.

Officers for the coming year were elected as follows: President, Dr. R. L. Feightner, Ft. Madison; vice-president, Dr. C. R. Armentrout, Keokuk; censors, Dr. J. H. Chittum, Wapello; Dr. M. Bannister, Ottumwa and Dr. J. T. McConnaughey, Winfield; secretary-treasurer, Dr. W. H. Johnston, Muscatine.

The 1928 meeting will be held at Ft. Madison, on the third Thursday in October.

W. H. Johnston, Sec'y-Treas.

Sacred Heart Hospital, Le Mars, and the Plymouth County Medical Society

A combined meeting of the staff of the Sacred Heart Hospital, Le Mars and the Plymouth County Medical Society with the Plymouth County Veterinarians as guests was held at the Sacred Heart Hospital, Le Mars, Tuesday, December 6, 8 p. m., Dr. F. G. Vernon of Merrill, presiding.

After a business session and election of county society officers the following program was presented:

Bovine Tuberculosis—R. B. Hunter, D. V. M., Remsen.

Bovine Tuberculosis Infection in Man—W. J. Brunner, M.D., Akron.

Contagious Abortion in Cattle—P. L. Ellis, D. V. M., Merrill.

Malta Fever with Case Report—C. E. Shepard, M.D., Le Mars.

Discussion.

A lunch was served after the meeting.

Chas. E. Shepard, Sec'y.

SCIENTIFIC EXHIBIT, MINNEAPOLIS SESSION A. M. A.

Arrangements are being made for the scientific exhibit for the Minneapolis session of the American Medical Association, June 11-15, 1928. The scientific exhibit will be located in the Minneapolis auditorium; in this building will also be housed the registration bureau, technical exhibits, and some of the sections of the scientific assembly.

The committee on scientific exhibit emphasizes that exhibits should be presented in a way which will stress their scientific value. This may be done

by carefully worded explanatory placards, but particularly by personal demonstration. The committee requires that all booths shall be in charge of a competent demonstrator.) Also it should be remembered that the general attractiveness of the exhibit is essential; the committee will do its part by having the booths decorated appropriately and will furnish uniform signs giving the name of exhibitor and the title of the exhibit. The total amount of space available in Minneapolis is only slightly larger than that available at the 1927 meeting in Washington. From the interest already manifested in the next scientific exhibit, it is evident that large blocks of space cannot be assigned to individual exhibitors.

Attention is called to the enclosed application form for space; if you desire to exhibit, please fill in the blank and return it for presentation to the committee.

Applications must be received before March 20. In order that the amount of space available may be apportioned to the best advantage to all concerned, the committee will make no assignments previous to April 15.

The motion picture theater, on recommendation of the board of trustees, will be omitted at the Minneapolis session.

Paul Nicholas Leech,
Dir. Scientific Exhibit.

PERSONAL MENTION

Dr. and Mrs. Hugh T. Walker of Riceville, celebrated their fiftieth wedding anniversary November 5 at their home. Dr. Walker is a graduate of Rush Medical College, Chicago, February 19, 1889.

Dr. J. C. Shrader, a graduate of the Iowa State University of Medicine, 1922, formerly of Atlanta, Georgia, has located in Fort Dodge, where he will engage in the practice of internal medicine and consultations.

Dr. M. A. Cunningham, who has been assistant superintendent of the Tubercular Hospital at Oakdale, Iowa, for a number of years, has taken up his duties as medical director of the Holy Cross Sanitarium at Deming, New Mexico.

Dr. A. R. Metz of Chicago has been appointed chief surgeon of Chicago, Milwaukee & St. Paul Ry. Co., to take the position made vacant by the death of Dr. B. Lounsbury. Dr. A. R. Metz will have jurisdiction east of the Missouri River.

OBITUARY

Robert R. Arnold died at his home in Humeston, Iowa, October 2, 1927, at the age of eighty years, seven months, twenty-two days.

Dr. Arnold was born February 9, 1847. He received his elementary education at the district school and Oskaloosa College, attended medical lectures at College of Physicians and Surgeons at

Keokuk, where he graduated in 1876, when he came to Humeston to practice in 1877.

He was married September 10, 1878, to Rhoda Joy.

Dr. W. P. Gardner, member of the Washington county hospital board, died October 29, 1927, while on his way to California for the winter. Dr. Gardner was about seventy years of age. He had practiced for twenty years at Wellman, when he retired to go on a farm.

Dr. William P. Gardner was born at Lexington, Iowa, October 30, 1858. He obtained his preliminary education at Washington Academy and Iowa Wesleyan College. He received his medical degree from the Iowa State University March, 1886, and at once located in practice at Lexington. The following year he moved to Wellman, where he practiced until his retirement, August 19, 1906.

He was married to Josephine Gassner of Mount Pleasant, September 9, 1886.

Dr. Gardner represented a high type of a county practitioner and was all his years a useful member of his community. He represented a class of practitioners that are rapidly passing.

Dr. Daniel W. Finlayson of Des Moines, died at his home July 7, 1927, of heart disease, at the age of eighty years.

Dr. Finlayson had lived in Des Moines forty-six years. For several years he had been in poor health. For twenty years he was professor of anatomy in Drake University School of Medicine.

Dr. John Collins Warren of Boston, Massachusetts, died at his home in Boston, Massachusetts, at the age of eighty-six years.

Dr. Warren was one of the most distinguished surgeons in America, distinguished not only as a surgeon, but as a member of a distinguished family, who had much to do with the early days of the American nation.

Dr. Warren was born in Boston May 4, 1842. Was educated at the Boston Latin School and graduated from Harvard University in 1863 and from Harvard Medical School three years later. He was instructor of surgery in the Harvard Medical School in 1871; assistant professor 1887, and professor of surgery 1893. In 1907 he became professor emeritus. For thirty-six years he was connected with Massachusetts General Hospital. Dr. Warren was made honorary Fellow of numerous distinguished bodies. His most notable contribution was Surgical Pathology, 1905.

Dr. B. C. Dunkelberg of Sumner, died at his home November 7, 1927. He had suffered many years from heart disease, which had seriously interfered with his professional work.

Dr. Dunkelberg was born in Pendelton, New York, in 1863. He received his early education at the Prairie Home Seminary and his medical educa-

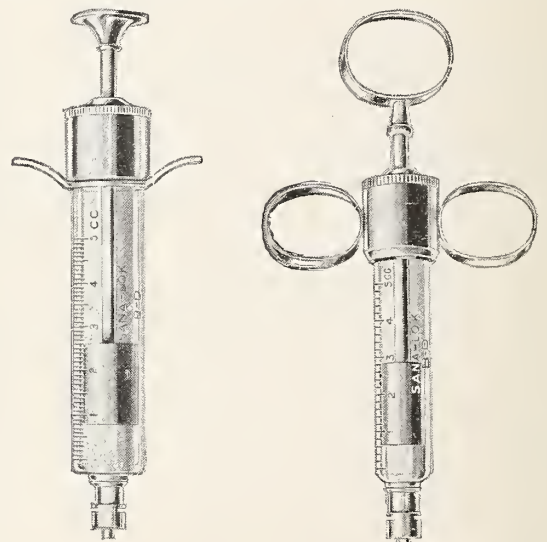
tion at the Iowa University School of Medicine, graduating in 1889. He first practiced at Schaller, Iowa, for a period of nine years. Then at Tripoli for another nine years. From Tripoli he moved to Sumner where he formed a partnership with Dr. Stafford, which continued until five years ago, when failing health compelled him to give up active practice.

Dr. Dunkelberg was sixty-three years of age at the time of his death. He is survived by his wife.

SANA-LOK SYRINGES

So far it has been imperative while sterilizing a syringe of the Record type to remove the metal plunger from the glass barrel, because, owing to the different ratio of expansion and contraction of the glass barrel and the soft metal plunger, the glass barrel breaks.

To overcome this objection, the Sana-Lok and the Sana-Lok Control Syringes have been constructed.



The barrels of these syringes are made of special hard resistance glass and the plungers are of non-corrosive steel. Non-corrosive steel and the special hard glass have the same co-efficient of expansion and contraction and it is, therefore, possible to sterilize the Sana-Lok and Sana-Lok Control Syringes without removing the plunger.

Both type syringes have the Luer-Lok arrangement which, by one-half turn, securely locks the needle to the syringe, yet the same can be quickly released by one-half turn to the left. No special needles are required—every Yale Luer needle fits and locks on the Luer-Lok.

The Sana-Lok Syringe has thumb rest and finger bars—the Sana-Lok Control Syringe thumb ring and finger rings.

Capacity of syringes—either 3 c.c., 5 c.c. or 10 c.c.

Made by Becton, Dickinson & Co., Rutherford, New Jersey.

INHALATION TREATMENT

One of the simplest and most rational of the many applications available for the treatment of rhinitis, laryngitis, and other affections of the nose and throat resulting in congestion or swelling of the mucous membrane, is Adrenalin Inhalant, Parke, Davis & Co. This preparation contains in a vegetable oil base Adrenalin in the same percentage as that contained in the standard aqueous solution—1 to 1000. The effects of Adrenalin Inhalant are prompt, but prolonged, for the reason that the Adrenalin is released slowly from the oil. Thus the patient gets a gradual and continued astringent action from the application of the Inhalant.

While Adrenalin Inhalant is usually employed full strength, some practitioners prefer to dilute it with three or four parts of olive oil or cottonseed oil; it does not mix well with mineral oils.

The use of Adrenalin Inhalant is advised in connection with some bland yet efficient antiseptic—one of the silver preparations, for example.

The best instrument we have ever seen for applying Adrenalin Inhalant is what is known as the Glaseptic Nebulizer, made by Parke, Davis & Co.

BOOK REVIEWS

THE ANATOMY OF THE NERVOUS SYSTEM

From the Standpoint of Development and Function. By Stephen W. Ranson, M.D., Ph.D., Professor of Neuro-anatomy, Washington University Medical School, St. Louis, Missouri, Third Edition Revised. Octavo Volume of 425 Pages with 284 Illustrations, Some in Colors. W. B. Saunders Company, 1927. Cloth \$6.50.

In considering this, the third edition of Ranson's work, the reader who is not an expert in the anatomy of the nervous system, may be chiefly impressed by the eminent readability of the text, at least in a relative way, due to the clarity of the diction and to the way in which the bald anatomical facts are linked up with the course of development and with the functional significance of those facts.

If such a reader notes the statement of the author in the preface of this edition, relative to the introduction of new topics, and also in the main preface relative to the inclusion in the text of the more important additions to the science of neurology made during the past twenty years, and follows this by noting the year in which various contributions have been made, it will appear that possibly the greater part of these advances have been made during his own lifetime and during the author's period of activity in this field.

From these observations an inference can fairly be drawn that the knowledge of the anatomy of the nervous system and the application of those facts in a clinical way have made numerous strides within comparatively recent times, to an extent at least

equal to those made in other branches of medical science.

From the opening chapter on the Origin and Function of the Nervous System, through the succeeding chapters devoted to the several divisions, structurally and architecturally, the careful linking of the structural with the functional continues to hold the attentive interest and to aid in the understanding and retention of the information given.

The outline for a laboratory course in neuro-anatomy will of course, be of major interest to the teacher and the expert, but may conceivably be of use to the lone student for his private instruction.

Each individual reader will, doubtless, find certain topics and their treatment as making more appeal to his interest than do others; to mention one or two, those on cerebral localization and on the physiologic and clinical significance of the course of the cortico spinal and cortico bulbar tracts may claim in the reader's mind special favor as serving to clarify conceptions formerly hazy.

Lastly, the series of illustrated clinical cases at the end of the volume, is very helpful and is probably as of great length as is permissible in such a work as this. The text is, of course, enhanced in value by the number of fine illustrations possibly of as great importance as the text itself.

It is to be regretted that the quality of paper needed to reproduce such illustrations, is by reason of its highly glazed surface, a mild source of annoyance to one who must, as is the case of most of us, read that work at night.

Reynolds.

A TEXT-BOOK OF MEDICINE

By 130 American Authors. Edited by Russell L. Cecil, M.D., Assistant Professor of Clinical Medicine, Cornell University Medical School, New York. Octavo of 1500 pp., Illustrated. W. B. Saunders Company, 1927. Price \$9.00 Net.

This book presents features of special interest. In the first place we have presented a practical consideration of the various subjects in medicine in such form that the practitioner may be able to take up any subject in its essential relations. For instance, consider the first subject: The Common Cold; Definition, Etiology, Morbid Anatomy, Epidermiology, Symptoms, Diagnosis, Treatment. We have presented the main facts which are essential to know in the treatment of this condition, included in six pages.

Following comes Influenza, Lobar Pneumonia. Other Pneumococcal Infections, Bronchopneumonia, Acute Tonsillitis. This includes a group of allied conditions which may or may not be associated, so that when such cases comes to our attention we have at hand what we should know, in the proper management of the case. As we look through the book we are impressed by the fact that the author knows what the reader is looking for. We have read many books on the practice of medicine and

have felt that we had acquired all that was known of any given disease. But in this book we find just what we need in the treatment of a given disease; we have discovered a long felt want.

We take again, *Diseases of the Kidneys*; beginning with *Anomalies of Urinary Secretion* and ending with *Cystic Diseases of the Kidney*. Again *Diseases of the Blood-forming Organs*. Also of the *Heart*, and so on including the entire 1500 pages.

All the articles are signed, in nearly all instances, by men well known to the profession and professors in medical universities. Well informed internists will not be satisfied without reading the more exhaustive work on medicine, but will find himself wise to have this book at hand for every day care of sick persons coming under his care. This is not a compendium but is made up of carefully prepared articles on the various forms of disease, by men of knowledge and, experience, able to determine what the practitioner should know at the bedside. Compendiums are not always fairly digested and leaves the discussion unbalanced. Not so in this book.

GONOCOCCAL INFECTION IN THE MALE

By Abr. L. Wolbarst, M.D., Urologist and Director of Urologic Clinics, Beth Israel Hospital; Consulting Urologist, Central Islip State Hospital, Manhattan State Hospital, and Jewish Memorial Hospital, Etc. With a Chapter Written by J. E. R. McDonagh, F. R. C. S., Surgeon, London Lock Hospital, Late Hunterian Professor, Royal College of Surgeons, Etc., London, England. With Eighty-nine Illustrations, Including Seven Color Plates. The C. V. Mosby Co., St. Louis, 1927. Price \$5.50.

This book is a masterly treatise on the treatment of gonorrhea in the male. It should be noted that Wolbarst is recognized as one of our outstanding authorities on this subject. His extensive practice in New York and his intimate contact with European workers—Luys, Joseph, Kalusner, Walker, McDonagh and others, gives to him an enviable position in this specialty and warrants the presentation of a work of this kind to the medical profession.

The text is a small one containing only 230 pages. It is brief, clear, easily understandable, terse and yet at the same time complete. The modern and accepted methods of treatment are incorporated. In the study of this book, one does not get the impression that it is a compilation of data collected from others but rather that it is a recorded experience gained from many years of an extensive personal practice.

Our attention is focused to the fact that gonorrhea (and its complications) is one of the most dreaded of plagues to which mankind is heir, and a destructive factor in our social structure. "Gonorrhea stands close to tuberculosis and syphilis and may be the greatest of these plagues."

The chapter devoted to the treatment of acute gonorrhea embraces the recent methods, with the aim in view of preventing chronicity and complications. His five glass urinary test cannot be accepted as being more practical than the two or three glass test as ordinarily employed. Brief space is given to the subject of diathermy. Undoubtedly this agent will become a more valuable adjunct in treatment in the future when its indications are better defined. Wolbarst's views on the cure of gonorrhea are interesting and the position he takes is indicative of careful observation. Sexual neurosis, he recognizes as a definite clinical entity and should be handled accordingly. A large majority of these patients present localized minor pathology, often-times easily correctable.

When the deeper genital structures have been involved in a gonorrheal process, he rightly stresses that it is essential to know whether a stricture is present or not, as well as the condition of the prostate and seminal vesicles. In other words, the treatment of a chronic gonorrhea demands a localized working diagnosis. Wolbarst rightly contends that this is a vital factor in successful treatment and throughout this volume he presents numerous sketches and photographic reproductions of these lesions.

McDonagh of London presents some unique views concerning the treatment of this disease in the final chapter of the book. The reader will do well to ponder over these views. The preparations which he suggests for intramuscular injection cannot be recommended as they are not easily procurable and also have not weathered the test of time. However, this mode of treatment cannot be dismissed, especially in the case of a systemic gonorrhea when we have nothing better to offer. W. R. H.

INSURABILITY, PROGNOSIS AND SELECTION—LIFE, HEALTH, ACCIDENT

A Treatise on Various Factors that Permit a Forecast of Health and Longevity, Selection of Risk for Insurance, Appraisal of Claim for Indemnity, by H. W. Dingman, M.D., Vice-President Continental Assurance Company, Medical Director Continental Casualty and Assurance Companies; Member Life Insurance Medical Directors Association, Etc., Etc. Price \$15. The Spectator Company, Chicago and New York, 1927.

To that large group of physicians who are directly associated with the medical directorship of insurance organizations, Dr. Dingman will need no recommendation or introduction. Any contribution by this writer will be eagerly sought by members of this group. To the practitioner whose insurance connections are not so close, may we say that Dr. Dingman stands not only as a leader but also as an accepted authority, in the field of insurance medicine.

This volume—*Insurability*—is unique in its field. There are many books available dealing with prob-

lems of medical selection of insurance risks but none so complete, specific and authoritative in its scope as this volume. The author has drawn liberally upon the available literature both from the medical and actuarial viewpoints, and so condensed the pertinent material that it is here presented only in its essence. He combines his personal experience with data as obtained and in concise, direct statements offers advice on practically all problems involved in medical (or non-medical) selection.

The volume is conveniently arranged in four main groups or parts. Part one deals in a general way with methods of insurance selection and the present accepted numerical systems of classification. Part two presents a general discussion of personalities—the agent, the applicant, the medical examiner, the medical referee, the inspector and the company. In part three is a detailed discussion of the essential elements of insurability—standards are established regarding age, sex, build, personal and family history, occupation, etc., with suggestions for the classification of applicants who deviate from these standards. About one-half of the page space in the volume is occupied by Part IV—a strikingly complete section dealing with prognosis. The various abnormal conditions discussed are arranged in alphabetical order for ready reference. Selection is suggested in every condition and in various degrees of deviation from the normally accepted limits of standard.

This volume should have a very extensive circulation among medical directors and medical examiners. Since the problems of insurance selection are chiefly those of prognosis, this volume will furnish the internist and general practitioner a viewpoint in prognosis which will prove of greatest value in his daily work. For the purpose for which this volume was written, it carries our unqualified recommendation.

R. R. S.

DISEASES OF THE SKIN

By Henry B. Hazen, A.M., M.D., Professor of Dermatology in the Medical Department of the Georgetown University; Professor of Dermatology in the Medical Department of the Howard University; Sometime Assistant in Dermatology in the Johns Hopkins University; Member of the American Dermatological Association. Third Edition; 240 Illustrations, Including Two Color Plates. The C. V. Mosby Co., St. Louis, 1927. Price \$10.00.

In 1915 Dr. Hazen presented to the medical profession the first edition of his treatise on diseases of the skin. At this time it was his expressed and accomplished purpose to compile a volume of moderate size which would prove useful both to the student and general practitioner. He has adhered to this principle in each of his later editions. The present volume will be found sufficiently complete to serve its purpose for reference by the physician

in a general practice and treating only the commoner conditions. The specialist will find the volume of but little value for reference.

A noteworthy departure in nomenclature will be found in the conspicuous absence of the time honored chapter "Eczema". Hazen has followed the newer and more rational classification of eczematous conditions, segregating them into their various etiological groups of dermatitis. Histopathology has been justly stressed since it is only upon a basis of this sort that any adequate and satisfactory appreciation of diagnosis in dermatology is attainable. Therapy has been treated more completely especially those forms employing electrical modalities. Prescriptions of proven value are given in full with explicit instructions regarding their scope of usefulness.

The illustrations, which are always most useful in a text of this sort, are clear and well executed. Two plates in color are incorporated in the volume.

This volume appears admirably satisfactory for the purpose of teaching students the fundamentals of dermatology.

R. R. S.

PHYSICAL DIAGNOSIS

By Richard C. Cabot, M.D., Professor of Medicine in Harvard University, Formerly Chief of the West Medical Service at the Massachusetts General Hospital. Ninth Edition, Revised and Enlarged, with Six Plates and 279 Figures in the Text. William Wood and Company, New York, 1927. Price \$5.

The revision of this well known treatise on physical diagnosis brings this work entirely up-to-date without in any essential way altering its original plan of construction. The chapters dealing with the cardiovascular systems have perhaps been subject to the greatest alterations. Recent advances in cardiac diagnosis and diagnostic methods have been incorporated. Greater stress is given this important phase of examination and mechanical procedures described in greater detail. Many new illustrations have been introduced.

As a guide to complete, careful and painstaking diagnosis the work is admirably adequate. Its arrangement, in regional sections, makes it most useful for reference. This revision, in every sense, maintains the high standard attained in the earlier editions.

R. R. S.

THE FIFTH AVENUE HOSPITAL CLINICS

First Series Based on the Material From the Semi-monthly Staff Meetings, 1925.

This volume of 336 pages is made up of material presented at the semi-monthly evening meetings of the hospital staff together with reprints of some articles published in connection with cases in the hospital. We shall not attempt to review in detail the various excellent papers presented. An interesting review by Doctor Honan, of the work of General Gorgas in Havana and Panama, in relation

to yellow fever, together with a plea for support of the Gorgas memorial.

The work of the various departments show how the hospital material may be used in studying the problems of disease under favorable conditions in the light of scientific and practical methods. It is fortunate that hospitals with well organized staffs are utilizing and publishing material for the benefit of the medical public. The former idea of holding a hospital for the care of the sick and injured alone, has given rise to a broader idea of generously extending the advantages of hospital study to the general profession. This is an advantage to the patient in that the attending physicians give their patients closer and more thorough study.

MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE WORLD WAR

Volume II, Administration American Forces. Prepared Under the Direction of Maj. Gen. M. W. Ireland. United States Government Printing Office, 1927.

"This volume considers only the more important administrative activities of the Medical Department in the American Expeditionary Forces".

The first consideration relates to Organization and Administration of the Chief Surgeon's office. Following appears the General Staff organization. Chapter three relates to the Liaison of the Medical officers of the United States Army with the medical services of the Allies. Chapter four, The Administration Division, The Personal Division, and so on, including all the divisions of service. Four chapters are devoted to The Division of Laboratories and Infectious Diseases, and six chapters to the Division of Hospitalization, with numerous illustrations.

After considering the organization and administration of the different services, the greater part of the volume is devoted to Hospital Organization and Hospitals, including laboratory services, which are considered in much detail.

The student of war hospital service will find in detail the manner of efficient hospital organization and administration of the various kinds of hospitals employed in war service and should give the reader a high appreciation of what was accomplished by the medical department in the World War and remove much of the criticism which was often expressed by certain men during the war period.

THE SURGICAL CLINICS OF NORTH AMERICA

Volume 7, Number 2; 231 Pages with 113 Illustrations; Paper \$12.00; Cloth \$16.00. W. B. Saunders Company, 1927.

This is a Philadelphia number devoted to cancer study; presenting the most modern views on cancer, chiefly of a clinical character.

The introductory chapter is devoted to an application of local anesthesia for securing specimens for microscopical study. We have first a skin cancer

of the forearm, with examples of basal-cell carcinoma originating in a scalp wound. Included in this study is a clinico-pathologic conference on tumors by Drs. E. B. Krumblaar, E. S. Clayton and S. W. Mulholland. A section of the book is devoted to a condition of giant-cell tumor of bone, followed by a clinical study of radiation in gynecology. The high mortality in cancer of the uterus and ovaries has led to a very careful study of these, the most modern methods of treatment. Considerable space is devoted to the treatment of cancer of paranasal sinuses, tonsils and larynx. An effort is made in this number of the clinic to review the most approved methods of treatment of obscure forms of cancer in the more inaccessible locations. The increasing prevalence of cancer and the apparent hopelessness of treatment has led research workers and surgeons to seek in every direction for some means of cure.

LIPPINCOTT'S POCKET FORMULARY

By George E. Rehberger, M.D., Author of Lippincott's Quick Reference Book.

A convenient reference for physicians in general practice, arranged in alphabetical order. It seems a difficult matter for physicians to write prescriptions for their patients and many are inclined to resort to proprietary preparations. But this is much better, in that it presents standard preparations; an advantage beyond the convenience is the accuracy of combination and attractive appearance of the preparation.

THE CURRENT SIGNIFICANCE OF THE WORD ALUM

By William D. Richardson, Former Editor, Industrial and Engineering Chemistry; Member, American Electro-Chemical Society; Fellow, American Association for the Advancement of Science; with References to the Literature, Published by the Commonwealth Press, Chicago, 1927. Price \$1.00.

This small volume was evidently written to answer certain arguments presented by Austin M. Patterson in his "The Meaning of the Word 'Alum'". Patterson attempted to establish the usage of the term "Alum", to include Aluminum Sulphate, a substance of considerable importance in the arts. Mr. Richardson, however, believes that the term "Alum" should only be used to designate the sulphate of potassium and aluminum and in this volume presents his arguments in an effort to build up a case to support his contention. His argument and his bibliography begin with the usage of the Greek and Latin and end with the usage of the word as reflected by the latest scientific authors and dictionaries.

To the chemist, the points in question may be of great moment and worthy of the careful and apparently exhaustive research accorded the connotation of this word in scientific expression. To the average physician the niceties of the argument presented will likely be lost and the discussion of little interest.

R. R. S.

The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, FEBRUARY, 1928

No. 2

CHRONIC EMPYEMA—ETIOLOGY AND TREATMENT*

HOWARD L. BEYE, M.D., Iowa City

Chronic empyemata must be divided into two main groups for proper consideration. The first group consists of those cases in which the diagnosis of empyema is not made and consequently surgical treatment is not instituted, while the second group contains those cases in which an empyema has been drained but infection of the intrapleural cavity persists with a permanently or intermittently draining sinus tract.

An empyema may remain unrecognized because its onset is atypical or because the physical findings are baffling. A surprisingly large number of these cases are diagnosed as pulmonary tuberculosis due to the fact that the patient has a hectic fever, cough, rapid pulse, loss in weight and the physical findings of intrathoracic pathology. An important differential point is that the evidence of disease is usually located at the base of the lung, is unilateral and the apices are clear. There is usually an increased white cell count, except in the most attenuated infections. The x-ray film will demonstrate a dense shadow usually fusing with that of the diaphragm and with the apex on the affected side uninvolved unless the process is so extensive as to include the entire hemithorax.

An empyema which has established a communication with a bronchus so that the raising of sputum in variable amounts is part of the clinical picture is frequently mistaken for a lung abscess and a differential diagnosis may be very difficult. Localization of the process within the pleura may usually be made successfully by x-ray examination, film and fluoroscopic, and lung mapping with lipiodol may be a distinct aid. Exploratory aspiration or thoracotomy will prove necessary in a small number of cases.

The second group, those in which an acute empyema has been drained and a cavity persists,

represents the largest and most difficult series of cases. There are many causes for failure of such a drained cavity to become obliterated.

Drainage may be inadequate. The opening may be placed too high in the cavity so that no matter what position the patient assumes, there will be an accumulation of pus in the dependent portion and the infection persists indefinitely. This is one of the commonest examples of inadequate drainage. The opening may be placed too low in the cavity. In this condition the diaphragm, becoming elevated as it does as the cavity decreases in size, presses upon the drainage tract until the latter is insufficient to act as an adequate drain. A similar situation arises frequently when drainage has been instituted between the ribs rather than by rib resection. Here the drainage tract may be tightly pressed upon by the ribs as the chest wall contracts down upon the lessening cavity. In other cases the drainage may be immediately adequate and properly placed, but the drainage tube is withdrawn too soon during convalescence. Following this the drainage tract may close in rapidly and the empyema persists.

The time of drainage in relation to the character of the infection may determine failure. An acute empyema produced by the various strains of streptococcus, especially the hemolyticus, early consists of a thin exudate with relatively little fibrin. There is only a slight tendency for the exudate to become walled off by adherence between the visceral and parietal pleural surfaces. Such is the condition found so frequently in the empyema complicating the so-called "flu", and also as a complication of scarlet fever and measles. Drainage instituted early in such an acute empyema is likely to be followed by an extreme collapse of the lung with the formation of an enormous cavity. Such a cavity may never become obliterated. A similar condition is found in a pneumothorax. The latter may develop spontaneously in bronchiectasis or other pulmonary lesion, or be induced inadvertently during an exploratory thoracentesis due to injury of the lung surface, and in either case the lung may be

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

tightly compressed against the mediastinum with a very large pyopneumothorax cavity resulting. If an empyema of considerable size is overlooked for a long period of time, the compressed lung may become firmly bound by a marked fibrous thickening of the visceral pleura, so that when drainage is finally established a cavity of considerable size is present with only limited tendency for the lung to expand to fill it.

Very uncommonly there will be an unrecognized pocket of purulent exudate in addition to the one which has been drained, and the two more or less independent of each other. When such a condition exists the originally drained empyema may not heal until the second pocket is recognized and drained.

A foreign body present in an empyema cavity may cause persistence of the latter. In civil practice the foreign body is usually a piece of drainage tubing. The lesson to be learned is obvious, that all drainage material should be secured to prevent it from slipping into the cavity, and must always be accounted for at every change of dressings. It is worth noting that a piece of tube may not cast a shadow in an x-ray film. This is especially true if the tube is of pure gum rubber. In any case in which there is a question as to whether or not one has lost a piece of drainage tubing in a cavity, it is much the safer course for both patient and physician to find out by exploring the cavity.

A bronchial communication may be the cause for the failure of an empyema to heal. In most cases such a fistula is only an incident in the course of the disease and the cavity and fistula both heal readily upon the establishment of proper drainage of the cavity. In some, however, the bronchial fistula is indicative of a pathological process in the lung which prevents a satisfactory expansion of the lung to obliterate the cavity, and in addition such a fistula may cause a persistence of active infection in the empyema cavity.

Osteomyelitis of the rib which has been resected to provide drainage of an empyema will, in rare instances, develop and persist and prevent a satisfactory healing of the empyema.

Tuberculosis of the pleura is an often unrecognized cause for failure of empyema to be cured by drainage. In many cases there will be nothing in the gross appearance of the pleura at operation which will allow of a correct diagnosis, and only the histological picture will be diagnostic. If a clinical diagnosis of tuberculous empyema is made, drainage should not be instituted

unless such an empyema is complicated by a secondary infection.

An empyema may complicate an unrecognized neoplasm of the lung or pleura. In such instances one may find at operation a frank pus containing the causative organism and the patient may improve markedly following the establishment of drainage. The underlying pathology may not become manifest until months later.

The treatment of chronic empyema essentially consists of the establishment of adequate drainage through a rib resection. In some cases it is advisable to make two drainage openings in a large cavity. Drainage should be dependent and free. As the cavity becomes smaller and the diaphragm elevates, it may be necessary to establish drainage at a higher level. Flushing of the cavity with Dakin's Solution or a solution of tincture of iodine in hot water may be a valuable adjunct. It cannot be done in the presence of a bronchial communication. The systematic use of blow-bottles is a distinct help during convalescence.

Such treatment carried out over a sufficient period of time, and this may be for several months, will determine an ultimate cure in a large majority of the cases, not including those of tuberculosis and neoplasm. Generally speaking the unsatisfactory results will be found in the largest cavities, in the oldest cavities and where there is an associated pathological process in the lung.

When the above outlined treatment does not establish a cure, some form of plastic operation may be considered, aimed at obliteration of the cavity. What procedure is indicated in a given case will be determined by the size of the cavity, its position and the age and condition of the patient. Often several stages will be necessary.

SUMMARY

The diagnosis of an unrecognized empyema may usually be made by a careful analysis of the history, the physical findings and the x-ray evidence.

The failure of an empyema cavity to become obliterated following operation is commonly due to inadequate drainage.

Early drainage of an empyema produced by the streptococcus will often be followed by collapse of the lung with the formation of a very large cavity.

A drainage tube may be lost in a cavity and cause a failure to heal. The x-ray examination often fails to demonstrate the presence of such a tube.

A bronchial fistula may be evidence of pathology in the lung which will prevent healing of the empyema.

Tuberculosis of the pleura and neoplasm of pleura or lung may be unrecognized and may be responsible for a failure of healing of an empyema.

Most cases of chronic empyema will heal if adequate drainage is provided for over a sufficient length of time.

Discussion

Dr. William W. Bowen, Fort Dodge—Dr. Beye has presented an interesting subject and a very common one, because we all have to do with empyema. We might have gained the impression from his excellent paper that, because he lays the greatest stress on drainage, it is all that is necessary in the treatment of empyema, but that is not the whole question. Why does not an empyema heal? First because there is inadequate drainage, but there are reasons other than that. In a chronic empyema of considerable extent the lung is retracted, and as the condition has existed for a long time a thick layer of pleura, sometimes approaching the consistency of sole leather in thickness and toughness, will overlie it. In order for an empyema to heal, one of two processes must take place. First, the lung must come out so that the visceral layer of the pleura is in contact with the parietal; second, if that does not occur the cavity must be filled with granulation tissue of such good quality that it will organize and draw the visceral layer to the parietal layer. In the case of a chronic empyema, what is the best thing for us to resort to? The essayist has mentioned the use of antiseptics. In subacute cases I haven't any doubt that antiseptics are of very much value; Dakin's Solution, dilute iodine solution, formalin, formalin and glycerin, are equally useful, and lately mercurochrome has come into use; all of these have had their indications. Some of them are many decades old. Antiseptic treatment will bring about cure of a certain proportion of cases. However, antiseptics must not be used in the case of a bronchial fistula, because, first, they may drown the patient; second, they may produce a paroxysmal contraction of the larynx with resultant death; or, third, they are almost certain to induce bronchitis and a secondary pneumonia. In addition to the simple remedies mentioned, there is one treatment that was brought out by Carl Beck twenty years ago which is of value, and that is the use of Beck's paste, which consists of bismuth and vaselin. A certain number of cases will be cured by continued use of this remedy. How does it do it? By filling the cavity, it keeps the cavity free from pus, allowing granulations to form around the paste, and as retraction occurs, they crowd the bismuth paste out of the wound. My formula for making the paste is one part of bismuth and two parts of vaselin. I think the only objection to using this agent is that in

large quantities you are likely to induce nitrate poisoning from nitrate of bismuth. To obviate that danger I think it would be advisable to use a large admixture of barium sulphate. This can be used and is not contraindicated by a bronchial fistula. It should not be injected rapidly, for if you inject it slowly some of the injected material will be coughed out, and it will do no harm and sometimes is of some value in long continued cases and even after they get well some of the paste may remain in the pleura. In one case, six years after treatment of this kind the patient went to Iowa City and was examined for some other purpose, an x-ray was made of the lung and a foreign body was reported in the lung. It was really the remains of the paste in the pleura. It had never done any damage, but had cured the empyema. Failing to secure results by these simple measures, it is necessary to adopt some surgical procedure. In addition to establishing drainage, in the efficacy of which I heartily agree with Dr. Beye, there are two principles involved in the surgical treatment of these cases, one of which we must follow: First, collapse of the chest wall to the retracted lung. This principle was recognized long ago, and Eslander devised the first simple operation which in most cases is the one that should be employed for collapsing the chest wall: Remove a large portion of five or six ribs and allow the chest wall to collapse against the lung, then establish adequate drainage. A second method of collapsing the lungs was devised by Schede of Hamburg, with extensive deformity and great mortality, and we resort to it with great reluctance: Make a U-shaped incision in the chest, lifting up the entire chest wall, curette off the thickened pleura and allow the whole thing to collapse against the lung. This procedure will produce a large proportion of cures unless the patient dies from the operation. Second, operating to allow the lung to expand so that it comes over against the chest wall, first brought out by Dr. Fowler of Brooklyn. For this purpose an incision is made sufficiently large to admit the hand and a rib or two ribs resected as may be necessary, and beginning with the parietal thickened pleura, this is stripped off, the stripping being continued over to the visceral pleura, and the thickened pleura is stripped off there also. This method is called decortication. It is a terrible operation and is sometimes associated with a great deal of hemorrhage upon reaching the visceral layer. Ransohof devised a simple method of cutting the visceral pleura, making incisions through the thickened pleura down to the lung, and the incisions will separate and allow the lung to expand. He makes these about one-quarter inch apart over the entire collapsed lung, then crossing them with lines in the other direction. These formidable operations are rarely necessary. It behooves most of us to follow the simpler line of irrigations, the use of pastes, etc., rather than to resort to these serious operations.

Dr. Thomas F. Thornton, Waterloo—Just one point that Dr. Beye made; I wish to emphasize that

in the cases previously operated which do not have the typical onset, frequently the patient will come in complaining perhaps of stomach trouble. He will have in addition perhaps night sweats. Possibly the first thing we think of is tuberculosis, for there is an increased pulse rate, high temperature, night sweats, and a stomach disturbance. Upon having an x-ray taken early, we will find the scars and adhesions, and even x-ray men will say there is no fluid and no tuberculosis. Continued observation and x-ray pictures over a period of time will show trouble later. This has been my experience at least, and I agree with Dr. Beye that adequate irrigation and drainage will do a great deal of good.

Dr. Beye (closing)—I am glad that Dr. Bowen brought up the subject of Beck's paste. However, I feel that Beck's paste should be employed only in accordance with the principle I wish to emphasize, namely: After adequate drainage has been established. If after the establishment of adequate drainage in these cases there is not an improvement, then try Beck's paste. I would, however, consider Beck's paste in the category of radical procedures, that is, it should be used only after the other measure has failed. We have had one or two cases in which striking results were obtained. I did not feel that in the time at my disposal I could go into that. Dr. Bowen discussed the subject in a very interesting and satisfactory way, covering the radical means of treatment at our command.

A FIRST AID STATION IN THE COUNTRY*

WILLIAM F. ANDOR, M.D., Carbon

The general practitioner of today that is located in the country, or in a town without a hospital, is merely running a first aid station. In other words he is referring a very large per cent of his clientage either to the specialist, or to the physician or surgeon that is fortunate enough to have access to a good hospital. The writer having recently completed his first thirty years as a general practitioner in an inland town without a hospital, and knowing that more than one-third of the total number of physicians in the State of Iowa are located in towns without hospital facilities, thought it might prove of general interest to present for your consideration a few of the problems, we as a class of first aid station operators are constantly called upon to meet, and in a small number of instances some of the methods used to meet them.

First let us consider the type of physicians commonly found in this group. Of the three

thousand, three hundred and seventy-eight physicians in the State of Iowa, more than one-third, or to be exact, twelve hundred and ninety-two of them are located in towns without a hospital within their midst. Very few of them are listed as being especially interested in one or more of the different branches of medicine. Eight hundred and sixty, or more than one-fourth of the total number of physicians in the state, are in towns of less than one thousand inhabitants. Of this number only two are limiting their practice to one special branch of medicine. Five hundred and forty-four are Fellows of the American Medical Association. Eight hundred and eighty-four are members of their county, state and the American Medical Association. Four hundred and eight are not members of their respective county medical societies. Forty-nine years is the average age of the Fellows and also of the members.

Fifty-six years is the average age of the non-members. And if one will exclude the recent graduates, who will probably become members in the near future, it would bring the average age of the non-members above sixty years, and would leave only a very few active practitioners in the smaller towns and country districts of the state, who are not members of their county medical society.¹ This group of general practitioners, which includes one-third of the total number of physicians in the State of Iowa, are trying conscientiously to contribute a high degree of medical service to the public. They were formerly handicapped by many difficulties that can, at the present time be eliminated through a more extensive use of our many resources, largely made available by the recent improvement in road conditions, and the more liberal use of modern transportation facilities.

The medical profession has for its prime object the service it may render to humanity. And it is the duty of the individual members to see that the services so rendered, are of the highest degree of efficiency. The physician that is without hospital facilities has his sphere of usefulness limited to such a great extent, that it matters not at all how thorough his medical training, nor how capable he may be of applying his skill. Even the recent graduate who has received the very best instruction in every branch of medicine, will be obliged to either adopt the first aid station plan, or render a mediocre degree of service to many of his patients.

In a well equipped modern hospital, with an adequate supply of assistants and nurses, the

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

1. A. M. A. Directory. Ninth Edition.

degree of service rendered by the specialist, physician, or surgeon, is limited only by his or her individual ability. And the recipient thereof has a right to expect to receive the very best service the commonwealth affords.

In the smaller towns and country, the general practitioner is frequently called upon to treat such a great variety of diseases and injuries, that it is utterly impossible for him to reach the high degree of proficiency, in all the branches of medicine and surgery, to be attained by the physician that is specializing in a limited number of them.

Many years ago when the roads were bad and our mode of conveyance slow, specialists unknown, hospitals few and inaccessible; many times physicians were obliged to undertake the treatment of a variety of cases, when they were neither well equipped nor competent to render to them a very high degree of service. As a matter of course those relations were always unsatisfactory, to both the patient and his physician.

At the present time with good roads and the modern motor ambulance, or passenger car that can be quickly improvised into an ambulance, the most seriously ill or injured, can be rapidly transported a long distance, with no more discomfort than would be endured for the same length of time, were they at home and in their favorite bed. These modern transportation facilities make it possible for the general practitioner to select the type of cases he is competent and properly equipped to treat, and either take or send any other patient to the specialist, surgeon, or consultant for diagnosis and treatment, or to the hospital for any necessary care he is unable to provide in the home.

Emergency cases can be taken from any location in the State of Iowa to a good hospital, where a good surgeon, skilled assistants, nurses, modern operating room, roentgen-ray machine, and every other appliance necessary to proper diagnosis, and the treatment of the patient are in readiness, in less time than would be consumed by the surgeon, in making the trip to the patient, and preparing a place in the ordinary residence for operative work. With the additional advantage to the patient, that the surgeon can do far better work and in much less time in familiar surroundings than would be the case were he operating in a private residence, with poor illumination and no conveniences. In fact in this state it is no longer necessary to perform an operation of any consequence, outside a well equipped operating room in a good hospital.

The public is receiving a better quality of medical service at the present time than ever

before. And we of the profession that are without hospital facilities and other necessary equipment for the correct application of many of the approved special methods of diagnosis and treatment, can secure such necessities for our patients with little more annoyance than would be endured were they located in the city. And by utilizing all of our available resources we can keep the quality of our work on a par with the achievements of the general practitioners who are located in the cities and larger towns.

It is the duty of the first aid station doctors to familiarize themselves with the general efficiency and equipment of the laboratories, specialists, physicians and surgeons within an available distance of their respective locations. Then when obliged to seek assistance, or when asked to guide and direct their clientele, they can more readily locate the proper source of aid for each of their individual needs.

Through the influence of the American Medical Association, the public is becoming far better informed about health matters. And Hygeia, the welfare organizations, the better class of medical writers in the lay press, and more recently the radio, are among the responsible sources from which these improvements have originated. There are many members of the profession, the writer among them, who believe it would be of inestimable benefit to the public, for the American Medical Association to own and operate a broadcasting station.²

The almost total elimination of many of the infectious and contagious diseases, through better sanitation and immunization, and the numerous specialists in the various branches of medicine, has to a large extent relieved the necessity for so great a number of general practitioners, and has permitted the remaining members of that branch of the profession to concentrate their attention on a fewer number of diseases, with resulting increased efficiency in their management and treatment.

Under present conditions, the practice of medicine in the country may be conducted in a very satisfactory manner to both patient and physician. To the patients because they may receive the highest class of medical service. To the physician because he or she will not be obliged to render more than temporary aid, to any case they are not properly equipped to treat. And it will always be to their mutual benefit, to refer all such patients to a place where the best treatment, for the individual illness or injury can be secured.

A considerable portion of the country doctor's

2. Report of the Board of Trustees, Jour. A. M. A., April 9, 1927.

time is spent visiting the sick in their homes. And with the aid of the modern motor car and good roads, this becomes, to the physician, the most pleasant feature of a country practice. For those who prefer to live in the country, there are many diversions peculiar to rural life, that serve to compensate them for the professional handicaps that must be endured. And the vast majority of the cases of illness and injury, that occur in the country districts can be cared for, and treated as efficiently in their homes as in the hospital.

It is not the purpose of this paper to advocate the removal of every case, or more specifically, every serious case to the hospital, or to the specialist. Far from it. But it is the borderline cases, or the ones where we are prone to delay action beyond the period of safety, that I wish to stress. If I am the only member of the class of physicians under consideration, who has had reason to regret inordinate delay in the seeking of proper assistance, the time allotted to this paper is wasted. However I believe we all have unpleasant memories, which we would prefer to cast into utter oblivion; wherein more prompt and decisive action on our part in securing proper assistance, would have spared our patients unnecessary suffering and in some instances would have saved life.

From personal experience and while in conversation with other first aid station doctors, I am constantly reminded of the fact that the majority of us are guilty of extreme delay, in the seeking of special assistance in many cases.

As hospital care is of inestimable value in the treatment of many conditions that confront every physician, those of us that are without such facilities should make every reasonable effort to place such patients in a good hospital. And if necessary refer them to another physician for medical attention.

IN CONCLUSION

Our main reason for existence as a profession is the service we can render to humanity.

We are not utilizing our available resources to the fullest extent.

Many of the difficulties that formerly handicapped the practitioners of medicine in the country districts, are eliminated at the present time.

It is no longer necessary, in this state, to perform any major operation outside of a good operating room, and the surgeon can do far better work in familiar and well equipped surroundings.

With the aid of the modern motor ambulance, or passenger car, emergency cases can be taken

from any location in the State of Iowa to a good hospital, in a very short space of time.

It is our duty to render a high class of service to our clientele or, in lieu thereof, direct them to the place where such service may be secured.

Discussion

Dr. A. Fred Watts, Creston—Dr. Amdor's paper is of interest to practically all of us in Iowa, for at least one-third of us are engaged in this phase of the practice of medicine. There seems to be more or less a growing tendency among the laity to believe that the general practitioner in the smaller town is a man of inferior mentality compared with his brother in the city. Since we are all from the same school and not far from the same age, that, of course, is erroneous. Therefore there must be some reason why we are not getting the confidence of the people as regards the serious ailments in the country that we are getting in the city. One of these reasons is, I believe, that we out in the smaller places get a little careless about our methods of diagnosis. Too many of us are not using the microscope sufficiently often in making our diagnoses; in fact, we find that too many of us are getting along without a microscope. There is no reason why we should send to the laboratory for a blood count or an ordinary culture of the nose and throat in order to secure a diagnosis of diphtheria or streptococcic tonsillitis or any of those conditions. With a very small investment we can have the equipment necessary to make these diagnoses and save our patients suffering and delay, making these cultures and arriving at the diagnoses in our offices. That, I think, is one of the possible reasons why the doctor in the small town is criticized by the laity and sometimes by the profession. It is because he is not making the diagnosis complete with blood counts and cultures while the disease is in its incipency. If we take in all the laboratory features that we are able to carry out, we are not going to be far behind the fellow that has the equipment to carry on this special work. Of course we do not aim to be specialists, but we are going to be able to give our patients just as good service as can be obtained in the city outside of the operative procedures. It was just this thought I wanted to add to what Dr. Amdor has given you: If our diagnosis can be made a little more complete with greater attention to details, we are not going to have the criticism that we have had in the recent past.

Dr. J. L. Augustine, Ladora—As I listened to the reading of the paper and heard the small town doctor referred to as a first aid station to a better institution, I could not help but have a little feeling of resentment, yet probably, to a certain extent, the statement is true. Now, if the little doctors in small towns are to consider themselves as merely agents or first aid stations for other or better institutions, then perhaps it is all right to think of the passing of the country physician. But as far as I am con-

cerned I do not feel that I want to be an agent, or first aid station, to some institution. By this I do not mean that a country practitioner should do everything that comes to him. Some time ago I had a Gasserian ganglion case and referred it to a Chicago surgeon for operation. Cases requiring especial skill should be referred. But there is a large number of patients I do not refer to anybody else, and I live in a small town too. Years ago at one of our society meetings I advocated, perhaps too emphatically, the doing of any kind of surgical operations in country homes. That probably was the enthusiasm of youth. Possibly very few here may remember the expression of my attitude on the subject at that time. Since then I have slowed down somewhat in that opinion. There is a handicap in working in the country without hospital facilities, but it is not so great that efficient country doctors should run first aid stations. To secure good results, it is not necessary to refer nearly all of your patients to some one else. What I would suggest to country practitioners is that they get a little better prepared and a little more completely equipped. While their work will be hard and the thing will not be altogether to their liking, yet I am sure that they can do efficient work and receive for it ample financial reward. I have made a good living in a town of not more than 400, and very likely I will live there until the end of my time. But I am sorry to see some of the things that are happening. Last summer I took a vacation of two or three months and wanted a doctor to stay in my office while I was gone. A bright young man consulted a professor of our medical school, came over and said, "If you haven't first-class hospital facilities here I feel that it would not be worth while to remain". I said, "You had better take your satchel and depart right now". If such ideas as that are taught, very soon there will be no capable country practitioners. Then an agent or first aid station may be required, but who would be it?

Dr. J. L. Taylor, Monroe—I am from a small town, but it really gave me sorrow to hear this paper because of the attitude taken by the essayist. I am not willing to admit that I am not competent to make a diagnosis and take care of my patient, and the reason the laity have no confidence in us is because we have done the thing that is recommended, sending everything to the city to a well equipped hospital for diagnosis and treatment. For instance, there is nothing more criminal than delay in a case of ectopic pregnancy ruptured. A man came from the city over here to see a patient who had been bleeding for six hours and advocated putting her in a motor car and taking her thirty-five miles to a hospital. The crime of that mistake was placed on the country practitioner; he called a man in a well equipped hospital and the patient died on the road. The onus was on the country practitioner because he did not have confidence in himself. I am not yet ready to announce to the public that I am not competent to take care of these patients,

classifying the cases and sending to the larger center those that need hospitalization, and keeping the others at home.

Dr. A. P. Johnson, Sigourney—Dr. Amdor states that he is from a little town. I am a little doctor from a little town, but I challenge any disparagement of the men from the little towns—the country doctors. I believe the country practitioner has multitudinous and vital functions to perform in the prevention, treatment and cure of disease, and this often under very difficult conditions. I am not taking issue on the work of the highly specialized men, for both the general practitioner and the specialist have plenty of work to do. They both have success and some failures. I think I might have abandoned medicine long ago because of the blunders I made but that I noted that even the best men make mistakes too. I observed that often the big men made worse mistakes than I did, because of their opportunity. I called a noted surgeon who diagnosed appendicitis and found inoperable cancer. A dean of our great state university diagnosed lumbar muscle strain, strapped the patient's back with adhesives and told him he would be well in a week. I found the patient a few days later suffering from carcinoma from which he died one month later. Then you all recall that Dr. C. H. Mayo was mistakenly relieved of his appendix at Buffalo and a week later had a colectomy which relieved the real pathology. And mind you these operations were not done by the country doctor but by the best surgical talent of New York. I think a specialist should first be a general practitioner. There is too great a tendency to treat a patient as a "case" instead of a patient, in our great institutions. There are two classes of humanity who are labeled by number—the criminal in our penal institutions and the patient in our great institutions—the hospitals. The personal element of the equation is lost. The general practitioner has greater opportunity to know the family history with its varied complexities. I agree with the essayist on the beneficent results of first aid stations in the country and the efforts of preventive medicine, but not with his deductions that such agencies open up new fields for financial advancement to the doctor. It is always a financial loss. I believe in preventive medicine as a service to humanity knowing it to be an altruistic measure, and the patient always so regards it. I have a concrete illustration in mind. In a neighboring village the solitary doctor there failed to quarantine a case of measles which developed there during a religious revival, with the result that a widespread, severe epidemic of that disease developed the treatment of which later netted the doctor \$2,000, besides enabling him to turn his friend the undertaker a couple of remunerative jobs. He declared the dollar he was assessed to assist in conducting the revival was bread cast upon the water which was abundantly returned after many days. There is possibly no greater field than that of the prevention of tuberculosis. Here the agencies of prevention—the doc-

tor, the nurse, and all the first aid measures—are necessary. It is the country doctor who first sees these cases. And while on this subject I wish to say that the country doctor should recognize these cases while they are still incipient and hence curable. Depending upon the finding of the tubercle bacilli makes the case less hopeful. By first qualifying to recognize the normal lung will assist in recognizing the pathological lung. I believe in the country doctor, our first aid measures, and all efforts at preventing disease. I believe in all these agencies being utilized with ever increasing efficiency in the relief of suffering and cure of disease. They are the supreme tokens of "Universal service to humanity".

Dr. Mat A. Tinley, Council Bluffs—At times we are in the seeming position of being "First Aid" stations, but as a rule the man in general medicine has made a very definite diagnosis. About 97 per cent of the patients of the general practitioner are satisfied with their care, and, their diagnosis perfect, his confidence in himself and his methods gives the patients no cause for alarm. However, about three per cent of the patients are in one way or another neglected or they are not satisfied and want a man to see them who holds out to be a super-diagnostician. Much of this can be avoided if the first man seeing them will use all laboratory methods available and make a careful survey of his case. Careful taking of history, proper stress laid on the entrance complaint, followed by use of laboratory and then proper evaluation of both history and laboratory reports will give the correct diagnosis. The well trained general practitioner, using all methods at his disposal either in his own office or the nearby hospitals or other laboratories, will sum up the case and arrive at a more satisfactory diagnosis than the specialist who sees the case merely from the standpoint of his own specialty. The heart specialist can only be of service to the general practitioner after the latter has eliminated all other factors. The stomach man is in like predicament. Specialists are supposed to confine themselves to their own particular part, at the same time they must if they are to succeed know the balance of the bodily ailments. In the final analysis they are merely highly specialized general practitioners. If from day to day we are making some particular research in our day patients, we will in the long run have a very complete examination of all who come under our care. With every case get a careful family history, and carefully note the entrance complaint, doing all the necessary laboratory work that is evidently required from the history given and the physical findings. Possibly at a later date get our blood pressure—Wassermann—urinalysis—bodily weight—statement from patient of past weight, etc. The patient is just as willing to pay the general man as he is the specialist if the work is done, and all this can be done by the average general practitioner. Once we start doing all our own general examining, sending merely the work requiring specialist training, as

eye, ear, kidney, we will cease to appear as aid stations and our position in the community will be established even if we do not appear listed as specialists in the city directory, telephone directory, and by large signs on our windows.

Dr. Charles H. Magee, Burlington—I endorse everything that has been said in the discussion, but while I am perfectly willing to admit that the surgeon in the fairly large town is a very, very sinful man, I am not going to say that all of them ought to be hung, neither am I going to say that the general practitioner is a Solomon. With your permission I will tell you a story. Down here at Rome, Iowa, there was a practitioner (I think he was a protege of Herrick), and we heard he had performed a Caesarean section on an Irishman's wife; whether with a butcher knife or not I do not know, but he made a Caesarean section. About two years afterwards I received a phone message at home and a man said, "Bring your instruments down to St. Francis' Hospital". I said, "In the name of common sense, what do you want?" "I want to do a Caesarean section." It was this man who did the other one. I had nothing to do with the case, but he called in a big old fellow (I think he used to be associated with Albert) and they agreed that a Caesarean section should be done. While the doctor was preparing for the operation the lady gave birth to a baby. The general practitioner in the small town may make a mistake just as well as the surgeon in the large town.

Dr. Walter L. Bierring, Des Moines—This interesting discussion seems to be confined entirely to general practitioners, but possibly there is another side to the question. I think any one that can write a paper such as the essayist has presented, has no apologies to make. In a recent very complete survey of medical conditions in this country, made through the Commission of Medical Education, some very interesting facts were brought out relative to the kind of practice that the average physician has to contend with at the present time. In a cross-section made of 500 practices throughout the country, it was found that only 10 per cent of the patients required hospital attention, that a large part, probably 90 per cent, were illnesses not difficult of diagnosis or treatment, and can be cared for by a competently trained practitioner with modest equipment and facilities. We are living, of course, in a sort of transition period so far as specialism is concerned. At the present time 15 per cent of the physicians in this country are practicing some form of specialty. It is another interesting fact to note that a large part of those now going into specialties are passing directly from the hospital into the chosen specialty, and are not having any experience at all with so-called general practice. A criticism is made of the country practitioner, which has been offered here today—that his examination is often incomplete; that when he charges a dollar for his prescription based on an examination of the tongue

and feeling of the pulse, he is overcharging, and possibly his patients realize this after a time and seek advice elsewhere. With the present comprehensive medical training a general practitioner is being developed who will be somewhat different from the type of years gone by, yet who will have a profound general knowledge of medicine, be a good diagnostician, in close touch with his community hospital, and who will serve his people as well as they have been served in the past; possibly better than can be done by any specialist or often by any practitioner in a large city. Gradually there is going to be a return to that confidence in the family adviser, in the consulting clinician of the future, that will be just as gratifying as any relations that have existed heretofore.

Dr. Amdor (closing)—In writing this paper I had a curiosity to know whether there was any way I could jar the men in this Society from their seats, and I see there is. But that was not the sole purpose of my paper. Some of the men here mentioned sending some specimens to laboratories, etc. I believe this practice was advocated in the paper. But the general practitioner can treat the vast majority of the cases just as well and better in the home than elsewhere. For major surgery, if we are surgeons, I believe we had better go to the hospitals to do our work. We would find things much more convenient there, and at the present time with modern transportation facilities we can get to the hospital quickly and can render almost any first aid work on the way to the hospital the same as we could do in the home. We are trying to follow some of the ideals that have been worked out. I stated in the opening of my paper that I had practiced all my medical life in the country, and I expect to spend the next thirty years in the same location and try to do as good work as I can.

ADVANTAGES OF THE BARRAQUER METHOD IN IMMATURE AND HY- PERMATURE CATARACT*

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Cataracts are of two types, the nuclear where the opacities of the lens are chiefly central and the cortical where they are mostly in the periphery or cortex.

There are many variations of these, but from a surgical standpoint they can be classed as "hard" or "soft".

Juvenile "soft" cataracts occur in patients below thirty or thirty-five years of age.

Theoretically senile cataracts should become hard or "ripe", after that age.

Ripeness in a cataract is a vague term and is meant when the lens nucleus becomes firmer and harder so that it can be "shelled" out of its capsule, before that time, they too are "immature" or "soft". Unfortunately, however, "ripeness" is not always typical and cannot always be diagnosed exactly. Just when the lens will be all "hard" with little or no liquid inside the capsule cannot be foretold by the oculist with any degree of certainty. If it were possible for a patient to be seen by the oculist every week or so from the beginning of cataractous opacities and slight changes noted by the ophthalmoscope and slit lamp, no doubt, he could state that the lens would be mostly hard at a certain time. The experienced operator can usually foretell if the lens is largely fluid or hard. The "ripe" lens has a mother-of-pearl appearance. He is often chagrined, however, to find a lens that should be ripe according to all the classic signs, is partly fluid.

It has become almost an axiom among the medical profession that a cataract must be ripe before it can be operated on.

This viewpoint has also been reflected to the laity.

This undoubtedly has come about by the many unsatisfactory results that ophthalmic surgeons who follow the old method, have obtained with soft cataract.

The hypermature cataract is one in which operation has been delayed and it has become "over-ripe" and the nucleus becomes partially soft.

A hypermature lens is called a Morgagnian cataract when the softness increases to the extent of it becoming semi-fluid or of a milky consistency or where it shrinks, allowing the hard nucleus to sink to the bottom of the capsule.

The soft senile cataract has been a big problem to the careful, ophthalmic surgeon, presenting many difficulties, yielding unsatisfactory results to the operator and delayed or poor visual results to the patient.

The surgeon who operates by the old classic method, that is, who does a capsulotomy before delivery, is always pleased and relieved to find that the lens is a firm hard nucleus when he cuts the capsule. Why? Because his results have been much better in this class of cases.

He knows that he will not have to wait so long for absorption of lens cortex to take place, that the eye will have less reaction and inflammation, and that the patient will have his vision much quicker. He knows that the subsequent needling can be done much earlier and he will

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927, Section Ophthalmology, Otology and Rhino-Laryngology.

have a better satisfied patient, with better visual results.

If he were only rid of the capsule and cortex, the operation would be ideal. With soft cataract, he has a much bigger problem to deal with. We might make a homely illustration by comparing a soft cataract to a soft boiled egg. While the shell is intact, it can be handled or lifted out, but once the shell is broken, the contents cannot be controlled.

With the Barraquer method the entire egg inside the shell is lifted out of the eye and nothing remains to absorb or cause trouble.

The inflammation quickly subsides, usually it is gone in a week or ten days and the patient can be given glasses and his vision is restored.

It is true that with any of the intracapsular methods that the average operator is more apt to have an occasional loss of vitreous than with the old method, if the surgeon is content to just deliver the solid nucleus (provided he is lucky enough to find it mostly solid) and leave the lens and cortical substance and capsule to remain or absorb.

If he attempts to remove the cortex or capsule either by irrigation or by forceps which most of them do, he is just as apt to have some vitreous loss. If he does not remove it, his patient is due for post-operative complications such as iritis, iridocyclitis, uveitis and glaucoma. The patient will have to go through a long dreary period of waiting, endure much treatment and then submit to one or more needlings to break up the capsule. The patient is also apt to have the formation of a secondary cataract.

I am firm in the conviction that if proper steps are taken to close the wound by a suture such as we have described in our former paper before you, that the chance of vitreous loss is negligible. Should the vitreous be fluid and a drop or two escape it is of less consequence and a small matter compared to the dangerous and unfavorable results of lens substance and capsule remaining in the eye following the operation and causing inflammation. This is liable to occur in the old classic operation for a senile cataract, but is sure to occur in hypermature or immature cataract or the Morgagnian type, all of which are soft.

J. O. McReynolds,¹ before the section on ophthalmology of A. M. A., 1922, by their request, read statistics gathered from a questionnaire sent out to the majority of American ophthalmic surgeons and says, "the responses developed the fact that in the hands of American surgeons, less than a score of men had really had more than a very limited experience with any form of intracap-

sular operation, in substance the prevailing answer was, I have not felt that my opportunities in cataract have been sufficient to warrant me in attempting the more difficult intracapsular operation when I am reasonably well satisfied with the old method to which I have become accustomed". He says further, "Ophthalmic surgeons generally feel that they would be glad to get rid of all capsule and retained cortex" and "that the most important factor in my own results has been the inflammatory reaction consequent on the retention in the eye of capsule and cortical debris". "If I had eliminated these factors, my results would have been far superior to what they have actually been." This is a very significant statement after such a survey. It shows that the old method is far from being satisfactory to the leading American ophthalmic surgeons.

Such a condition has caused progressive ophthalmic surgeons to cast around for some method yielding better results. The ultra conservative surgeon who has usually reached the age of ripe maturity before he has the opportunity to do much cataract work, finds it difficult to change his methods. He must work out a new and complicated technique and drill assistants in it and consequently he is reluctant to change. The young surgeon in the average established eye clinic or hospital can seldom inaugurate such a change. The advanced thinkers, especially in Europe, have recognized the advantages of the Barraquer method and are frank in conceding its advantages, provided one is able to master the technique.

A. Elschning² feels that he is justified now in saying that the Barraquer method is by far the best method of extraction of cataract in the capsule.

R. E. Wright³ says, "After performing 250 cases by the Barraquer method, apparently phacoeresis is more valuable than any other method yet introduced for removing the lens in its capsule in selected instances".

Saint Martin,⁴ before the French Ophthalmological Society in 1925 compares the results of extraction done by the Barraquer method with those done by the old method or by the method in which a piece of the anterior capsule is torn out with a forcep. "With the Barraquer 50 per cent had 8/10 or normal vision, with the other methods only 25 per cent had as good vision."

Last year Dr. J. E. Weeks of New York, one of America's foremost eye surgeons, made the following reply to a surgeon friend of mine who was discussing the author's methods, and who was reluctant to leave the classic operation, "Doc-

tor, I say to you frankly after watching the results obtained by Dr. Barraquer, that, if I were a young man, I would certainly familiarize myself with the Barraquer method".

Dr. Weeks⁵ in presenting his impression of ophthalmological activities in a trip round the world, tells of his visit to Dr. Barraquer's clinic at Barcellona, Spain, and of watching him operate a very difficult case with a very successful outcome. He says, "Dr. Barraquer presented for my observation, a number of private patients on whom he had recently operated, and also a number on whom the operation had been performed a considerable time previously. The results in the cases observed left little to be desired".

Dr. Edward Jackson⁶ quotes the paper of Arnold Knapp read before the London convention of English speaking ophthalmological societies a year ago and cites the value of the statistics given. Jackson says, "On the whole the late results in Knapp series could be counted good for any form of cataract extraction.

Knapp cites 200 cases operated on by the intracapsular method between six and sixteen years before. He could give the results as to vision and change in the eyeball in eighty-five of these cases. Knapp cites fifty-seven of these cases who had vision just as good or better than it was just after the operation. Sixteen more had died but had retained their vision to the end.

Knapp says, "There is no question that the vitreous is much more free from opacities in these cases than in the capsulotomy cases. This is to be expected by the greater freedom from iridocyclitis and the absence of reaction which sometimes follows the discission. No changes were found in the deeper vitreous layers with the slit lamp, other than those described by Vogt as senile".

Knorr⁷ used Knapp forcep and technique in twenty-six cases and succeeded in delivering the lens with the capsule intact in only nine of these.

In our technique as performed with the Green erisiphake, the lens is lifted out much as it would be by the Knapp forcep. It is not accomplished by suction. The erisiphake is placed in apposition to the lens, then when the vacuum starts it pulls the lens capsule up into the cup tip of the erisiphake and it is plugged, and suction ceases. As the vacuum increases the cataract is effectually held.

The lens is then lifted out (see our technique). We feel that lifting it out by either the Knapp or Barraquer technique has very decided advantages over expressing it by the Smith Indian

method or its modifications as expressed in our former paper before you.

The Barraquer method has the very decided advantage over the Knapp method of not being nearly so apt to rupture the capsule.

The patient with a soft cataract who has it lifted out of his eye without vitreous loss with the capsule intact, is a very fortunate individual. He does not realize perhaps just how fortunate he is unless he has the opportunity to compare notes with some other patient who has had the opposite condition of affairs, either by the intentional rupturing of the capsule by surgeons doing the old method or an accidental rupture in the intended performance of an intracapsular operation.

PRELIMINARY IRIDECTOMY

In my former paper, I stressed the importance of preliminary iridectomy. I wish to re-affirm my views on its value. It is conducive to good results with any method, but more especially so with the Barraquer technique. By adopting the open method of treatment, we are able to do our cataract operation a week or ten days after our preliminary iridectomy. We do a medium sized iridectomy through a corneal incision made with a keratome. The next day the eye is unbandaged and the infra red zoalite radiant energy treatment is begun. After one week or less, all redness and inflammation will have passed and we can go ahead with our cataract operation.

I am convinced that the infra red ray definitely reduces inflammation and promotes rapid healing in this as well as other eye conditions.

Preliminary iridectomy insures the tension being low, thereby lessens the chance of the vitreous presenting, or other complications such as intra-ocular hemorrhage. The chance of infection is less during the cataract operation.

There is no hemorrhage from the iris to interfere with vision in placing the vacuum tip on the lens. If the pupil can be widely dilated i. e. beyond 8 m.m., the extraction may be performed without an iridectomy although we have not made it a practice to do so. It has been said that the Barraquer technique is contraindicated in eyes with small cornea or shallow anterior chambers on account of the iris being included in the primary incision and the capsule opened. While these are more difficult, they can be done by means of preliminary iridectomy. When a good sized conjunctival flap or bridge is made after the corneal section, it is more difficult to perform a satisfactory iridectomy.

John Green⁸ "The psychic effect is a valuable asset. Having passed painlessly through the

first ordeal and been assured by the surgeon of a satisfactory outcome, the patient's confidence in himself and his surgeon is heightened, so that he loses all dread of the second operation. Should complications (vitreous loss, etc.) occur at the time of the expression, the placidity of the patient and his easy acquiescence to all commands are important factors in enabling the surgeon to complete the operation satisfactorily. I myself would much rather operate on a patient who has this mental attitude than on one whose nervous hypertension has been lowered by pre-operative narcotics".

Preliminary iridectomy also serves a valuable purpose in preventing secondary glaucoma following the operation.

A low grade glaucoma is often a complication of cataract and it is frequently precipitated by the operation for cataract or its subsequent needlings.

Luther Peter⁹ in a paper before the College of Physicians at Philadelphia, Section of Ophthalmology says, "Ophthalmic surgeons are practically agreed that cataract complicated with glaucoma should be extracted in the capsule", and says further, "The technique may differ, but an intracapsular extraction is indicated for several reasons. It is the experience of most surgeons that inflammatory reactions are common if the capsule is ruptured; that it is more difficult to thoroughly rid the aqueous chamber of lens substance and thickened capsule by means of irrigation, than in an average case of senile cataract. The presence of thickened capsule and lens debris not only acts as an irritant to further favor obstruction of the angle, but it necessitates a subsequent hazardous discission operation if good visual results are to be obtained. In a former communication before this section, I voiced the opinion that a needling operation after cataract extraction is not free from danger. Further experience has furnished corroborative evidence that it is to the advantage of the patient to be spared a secondary operation, if possible. After extraction of hypermature cataract complicated by glaucoma, the dangers of needling are proportionately increased".

TECHNIQUE

Our technique was given in a previous paper before this Society but I will review it briefly.

Lids injected, above and below with novocaine, cocaine instilled and injected subconjunctivally.

Full one-half corneal section terminating with a big conjunctival flap, a Kalt silk suture placed through and through with a large loop laid to one side. Corneal flap held up while Green erisi-

phake is placed on cataract. Vacuum then applied, canula rocked back and forth a few times to rupture suspensory ligament and to do away with vacuum behind the lens. Lens delivered, upper border first, no irrigation. If the lens does not deliver readily, we use the ball tip of the Green forcep to make light counter pressure, usually not necessary. Little toilet necessary except replacing iris pillars if the pupil is not well out of way from atropine previously. The Kalt suture is pulled up and immediately tied. White's ointment instilled. Patient may be moved or up next day if advisable as the wide conjunctival bridge and suture affords sufficient protection.

Case 1. Mr. J. H., Lucas, Kansas, age sixty-five. Totally blind in right eye, six and one-half years, light perception, two feet. Left eye, two years, light perception, two feet. Preliminary iridectomy February 23, 1927. Dressing removed next day and infra red radiant energy used for thirty minutes every three hours. In five days all inflammation and redness was gone. March 3, 1927, the Barraquer operation was performed. Morgagnian semifluid cataract. At same time, we did iridectomy on left eye. The next day the left eye was uncovered and the infra red treatment begun. Right eye inspected under dressing second day. The right was uncovered and dressed on the third day and patient could see my face. Infra red treatment begun. The redness and inflammation was almost gone on the fifth day and he could see around the room with a cataract lens. March 9, suture removed and on March 10, just one week after the operation, he was refracted. Plus 10.00 plus 3.00 ax 180—18/40. No dressing after this time.

March 12, exactly nine days after the operation he was given glasses and wore them continually. March 14 the vision was 18/30 plus. The cataract was removed from the left eye on this date with the same kind of a result, except that the redness and inflammation did not clear quite as quickly. March 29 right eye had normal vision 18/15 and J.1 and the left eye 18/40 J.3.

The patient was dismissed at this time. We have word from him since, that with his glasses he can see as well as he ever could, and he can see to drive nails at his carpenter work.

Case 2. Mrs. Phoebe L., Marshalltown, widow of former eye specialist, age seventy-six, left eye, vision had been failing for five or six years, but very rapid loss last two months. Vision 3/200. Had been waiting for cataract to become "ripe". Preliminary iridectomy October 20, 1926. Barraquer intracapsular extraction October 29. Lens cortex was soft enough that it could be moulded. November 8, inflammation gone and was refracted. Vision 18/40. Given her glasses to wear constantly, exactly ten days after the operation. November 17, 1926, she had normal vision 18/20 and J.1 and went to Florida to spend winter. Reports eye better than ever.

Case 3. Mr. W. H., Beaman, Iowa, age seventy-eight, right eye blind two years. Light perception only, iridectomy, April 14, 1926. Barraquer April 29. Morgagnian cataract, fluid, tough capsule. Could be moulded as easily as a sack full of water. One week after anterior chamber was clear and inflammation gone. Refracted May 12, 1926 and given glasses. Vision 18/20. Word since that his vision is as good or better. September, 1926, his corrected vision was normal 18/20 and J.1 and has continued so.

Case 4. Mrs. B. F. C., Lacona, Iowa, age seventy-six. Right eye blind four years. Light perception only, lids slightly inflamed, culture showed staphylococcus aureus and albus, cleared up by intensive treatment and injection of the tear sac. Preliminary iridectomy November 2, 1925. Barraquer November 12, 1925. Soft Morgagnian cataract. Very little reaction and anterior chamber clear one week after. Refracted two weeks after the operation. Vision 18/40 and J.1. December 3, vision right 18/20 and J.1 less than a month after the operation. A letter this spring, one and one-half years after, says vision is still as good or better.

Case 5. Mrs. Christine O., Sioux Rapids, Iowa, age seventy-six. Blind in right eye four years, left eye counts fingers at two feet. Right lens looks like it was soft. December 29, preliminary iridectomy both eyes. January 5, Barraquer extraction right eye. Very large soft cataract with solid central nucleus. No vitreous loss or bulge. January 9, vision 12/50. January 13, 1927, a soft cataract was removed from the left eye with capsule intact in spite of small posterior synechia that was not observed when the iridectomy was done. January 25, she went home with vision right 18/20 and J.1. Vision left 18/30 and J.1. Writes since that both eyes are better and stronger.

CONCLUSION

Intracapsular extraction of senile cataract of any type is advantageous but more especially is this true with soft cataract. The Barraquer technique is the best intracapsular method. It offers the patient the quickest and surest path to restored vision. The procedure is more exacting, but the end justifies the means. Smith says, "The intracapsular operation is a specialty within a specialty".

After all is said on the subject, one can rest his argument of the merits of any cataract procedure on visual results. The function of the eye is to see. The method that consistently gives the best vision with the shortest loss of time to the patient is the ultimate operation.

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CERTAIN DIFFICULTIES IN THE DIAGNOSIS OF EXOPHTHALMIC GOITER*

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Exophthalmic goiter is a disease associated with an unknown stimulus on the thyroid gland, resulting, according to H. S. Plummer's hypothesis, in the production and delivery to the tissues of an abnormal thyroid secretion and, almost invariably, an excessive amount of normal thyroxin. The symptoms and signs of exophthalmic goiter are those which are dependent on an increase in the body metabolism and also on certain characteristic phenomena which may be assumed to be dependent on the presence in the tissues of an abnormal thyroid agent, the exact nature of which is not known. These phenomena are: exophthalmos; stare, which may be present with or without exophthalmos; tendency to diarrhea and vomiting; gastro-intestinal crisis, and a peculiar psychic state characterized by irritability and frequent useless purposeful movements. Hyperfunctioning adenomatous goiter is characterized by those phenomena which are dependent on an increased basal metabolic rate and are identical with the phenomena produced by feeding an excessive quantity of desiccated thyroid, or by repeated intravenous injections of thyroxin.

In any proved case of hyperthyroidism the differential diagnosis of the hyperthyroid state may usually be made from some of the preceding characteristics. There are, however, other signs which are helpful in the differentiation. Definite absence of adenomas in the gland is, for practical purposes, presumptive evidence of exophthalmic goiter. In from 20 to 30 per cent of the cases of exophthalmic goiter seen at the Mayo Clinic adenomas are present in the gland, so their presence does not make the diagnosis

*Presented before the Midsummer Meeting of the Austin Flint-Cedar Valley Medical Society, Cedar Falls, July 12, 13, 1927.

of hyperfunctioning adenomatous goiter. Bruits over the thyroid vessels, especially at the superior poles, are frequently heard in cases of exophthalmic goiter. From such bruits must be distinguished those referred from the aortic valve and aorta, those due to arterial compression, and those heard over vascular colloid goiters of the adolescent type. The finger and toe nails frequently give diagnostic aid in cases of exophthalmic goiter. They are often partly and irregularly separated from the nail bed, with occasionally a turning up of the outer edge of the nail. This condition of the nails is rarely seen except in cases of exophthalmic goiter.

The differential diagnosis of exophthalmic goiter and hyperfunctioning adenomatous goiter is of considerable practical importance because of the difference in treatment. The value of the administration of iodine to patients with exophthalmic goiter makes it imperative that every patient with this disease should be given iodine before the institution of any surgical procedure. According to the hypothesis which assumes the elaboration of two products by the thyroid gland in exophthalmic goiter, iodine should not be of value in hyperfunctioning adenomatous goiter. There are, however, other considerations of this problem, and all its practical aspects have not yet been completely established. It has been the custom at the Mayo Clinic not to give iodine to patients with hyperfunctioning adenomatous goiter except when the differential diagnosis cannot be determined absolutely. In this event, iodine is used in the preoperative preparation, and probably no ill effects follow its use for this short period.

Historic evidence may be of value in the differentiation of the two conditions: hyperfunctioning adenomatous goiter is usually gradually progressive and exophthalmic goiter usually progresses with remissions. The history of gastro-intestinal crisis with diarrhea and vomiting is often obtained in cases of exophthalmic goiter. In recent years, since the use of iodine became widespread, the clinical separation of these two groups of cases has been somewhat difficult in some instances. That this should be true is obvious. When H. S. Plummer began the use of iodine in the treatment of exophthalmic goiter he anticipated, in hypothesis, the control by this means of those phenomena dependent on the production of an abnormal agent by the thyroid gland. Following the administration of sufficient quantities of iodine, the patient is placed in the physiologic status of the patient with hyperfunctioning adenomatous

goiter. In some cases there are persistent evidences of the theoretic abnormal agent, for example exophthalmos; on some there is definite historic evidence of exophthalmic goiter, or the physical characteristics of the gland, nails, and so forth, are pathognomonic. If all these factors are absent it may be impossible to make a differential diagnosis.

Aside from the cases of hyperthyroidism, those most frequently presenting difficulty in differential diagnosis are the states of fatigue designated as neurosis, neurasthenia, chronic nervous exhaustion, and so forth. The nervous phenomena of exophthalmic goiter are those of intoxication, while those of chronic nervous exhaustion are those of lack of assurance. However, in many cases of exophthalmic goiter the patients are neurotic, and in the borderline cases there may be great difficulty in the differential diagnosis. The basal metabolic rate aids greatly in this problem, but in many instances the neurotic patient is not sufficiently relaxed to permit of making this test under truly "basal" conditions. Several estimations may be made on successive days in order to train the patient to be completely at rest during the test. In some cases it is necessary to have the patient in the hospital over night and to make the test before he has arisen. It is a common occurrence for the metabolism tests made on successive days on a neurotic patient to read, for example, +25, +20 and +2 per cent, and for innumerable subsequent tests to coincide with the latter figure.

The most valuable test in differential diagnosis in this group is the response to the administration of iodine, and the most characteristic change to be noted is in the nervous manifestations. A drop in basal metabolism is also of great value if a sufficiently accurate base line has been established before iodine is given. Great weight is added in the latter case if, after the iodine is stopped, there is subsequently an increase in the basal metabolic rate.

Essential hypertension is a condition in which the establishment of coexistent hyperthyroidism may be difficult. In a considerable group of cases of essential hypertension, the basal metabolism is increased; in another group it is normal. Resection of the thyroid in the former group is not always followed by a drop of the rate to normal. In some patients, following partial thyroidectomy for exophthalmic goiter or hyperfunctioning adenomatous goiter, the basal metabolic rate does not fall below +20 per cent. Theoretic considerations as to the cause of this are beyond the scope of this paper. To separate, in

the group with increased basal metabolic rate, those cases of exophthalmic goiter and hyperfunctioning adenomatous goiter from those in which hyperthyroidism does not exist primarily is not an easy task, but it is important to make this separation whenever possible in order to determine the advisability of thyroidectomy. In many of the cases the presence of some or many of the characteristic phenomena of exophthalmic goiter afford a definite basis for a diagnosis. In others, observation under conditions of rest in the hospital, and the effect of iodine, especially on the nervous phenomena, are of great value. In some it is not possible to establish the presence of hyperthyroidism definitely. If good-sized adenomas are present in the thyroid gland and the general condition warrants it, thyroidectomy is advisable. Loss of weight without previous dietary restrictions, and the presence of intermittent or persistent auricular fibrillation are frequently important evidence in the establishment of the diagnosis of hyperthyroidism.

In Parkinson's disease it is occasionally difficult to establish a diagnosis of hyperthyroidism. Patients with this disease have frequently a somewhat stimulated appearance, and a warm moist skin. The tremor, and generally increased muscle tonus, make it impossible in many instances to obtain metabolism readings which are truly basal. Frequently the most satisfactory means of making a differential diagnosis in doubtful cases in this category are, first, the determination of several successive metabolism tests made with the patient in bed in the hospital, and second, the determination of the effect of iodine both as regards the changes in the basal metabolic rate and the changes in the nervous status of the patient.

There is one other group of cases which deserves especial mention, a group which is frequently baffling to experienced clinicians. Occasionally in any emergency service a patient is seen with extreme prostration, vomiting, and marked cardiovascular disturbance. Exophthalmic goiter is frequently not considered in such patients, as there may be no eye signs, and the illness may be of short duration. Any such combination of severe gastro-intestinal and cardiovascular disturbances should call to mind the possibility of an exophthalmic goiter crisis. In fact, any case with an unexplained cardiovascular disturbance should call this condition to mind. I recall the condition of two of my own recent patients: One had marked prostration, intermittent auricular fibrillation, and mania alternating with periods of confusion. The diag-

nosis in this case was not made for several days. The other, who had been referred for gastrointestinal examination because of an acute episode with persistent vomiting, had intermittent auricular fibrillation and auricular flutter. She was stuporous most of the time and was constantly bathed in cold sweat. Although there were no eye signs, exophthalmic goiter was immediately suspected. It seemed impossible to make a diagnosis at this time, but on the chance iodine was given, at first with a stomach tube, later by bowel and by mouth. The patient's recovery was startlingly prompt. In a week she was rational and co-operative, the heart had become regular, and its rate had fallen from 180 to 110. A basal metabolic rate taken as soon as the patient was able to co-operate was +29 per cent; it had undoubtedly been higher. The absence of any previous ill health was a significant factor in preventing an earlier diagnosis of the true condition, exophthalmic goiter.

Patients with diabetes are occasionally precipitated into coma by hyperthyroidism. It should become customary on any diabetic service always to suspect hyperthyroidism if a patient does not respond to dietary measures and insulin as anticipated. I have seen one patient in coma when the result of treatment with insulin was disappointing. Iodine was then given, and the comatose state disappeared in twenty-four hours. It was necessary later to stop the administration of iodine and to observe the patient carefully in order to establish a diagnosis of exophthalmic goiter.

I wish to mention only one other group of cases, which, because of increasing efficiency in the recognition of hyperthyroid states, has become extremely small. This group comprises those cases in which, following operation on some organ other than the thyroid gland, the postoperative reaction is out of proportion to expectations. In such cases with the patients confined to bed and unable to co-operate in the various examinations, the diagnosis may be impossible at the outset. Auricular fibrillation, or any other cardiac irregularity, or an excessive unexplained elevation of the pulse should always make one think of an hyperthyroid reaction. In case of doubt, it is frequently safest to give iodine either by mouth or by rectum in doses as high as 100 minims daily, and to make the final diagnosis later. An example of this type of case occurred several months ago when, following vaginal hysterectomy, a patient had a sudden rise in temperature and pulse, with intermittent auricular fibrillation. Careful scrutiny of records

of the preoperative examination failed to arouse suspicion of exophthalmic goiter. The thyroid was barely palpable, and there were no changes in the eyes. Iodine was given daily in 50-minim doses and there was prompt subsidence of the reaction. During the period of convalescence basal metabolic rates were found to be normal, so the administration of iodine was stopped. In two weeks the metabolic rate had risen to +25 per cent and the patient was in a frankly hyperthyroid state. Iodine was again given, and the thyroid gland was resected. The characteristic pathologic changes of exophthalmic goiter were found.

I have mentioned only a few of the pitfalls that are open to us in the diagnosis of exophthalmic goiter. Owing to the teachings of H. S. Plummer, particularly in establishing the value of iodine as a therapeutic agent in such cases, we have acquired not only the greatest aid in the treatment of exophthalmic goiter but the greatest aid in the diagnosis of obscure cases.

THE PHILOSOPHY OF THERAPEUTICS*

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The monumental advances made in medicine in our generation, are largely found in the domain of pathology. These have had two striking effects: In the first place, the incomplete fragmentary knowledge of the etiology, pathogenesis, morbid anatomy, and clinical manifestations of disease, has been elevated to almost complete science; and in the second place, the interest of the modern physician has been vamped from therapeutics to pathology, to such an extent that the well trained modern doctor seems more interested in making a correct diagnosis, than in effecting a cure. Yet, patients have in the past sought, do now, and will forever seek the physician in order to be healed from their infirmities.

We are living in an age when, by man's ingenuity and skillful scientific labor, human comforts are swiftly augmented. It seems to me, that our fellow beings have a right to expect from the disciples of Esculapius, a conquest of disease of corresponding magnitude to the wonders that have been wrought in the non-medical fields of human endeavor. And, in order that the medical profession may merit the respect it has enjoyed in the past, the next generation

must make as telling advances in therapeutics, as ours has accomplished in pathology. But, you may counter, striking advance has been made in this field—and such indeed is the case. Yet, the ones made are but isolated instances, jotting up like islets in the slough of empiricism in which we are wallowing at present. Therefore, in order to defeat disease, in a way that is commensurate with the dignity of our profession, striking and lasting advances must be made along the whole line of human therapeutics. And such progress must come, in the main, from the practitioners of medicine, rather than from a few cloistered laboratory workers. For, those who are actually on the firing line are not alone charged with the pulling of the trigger; theirs is also the task of determining the effect of the fire.

Before we can make any real headway in therapeutics, the spirit of the practitioner must be radically changed. A spiritual rebirth, if you please, must come about. Hitherto, the majority of our professional brethren have had as their chief goal, the pleasing of their patients. That is, if the patient was well enough satisfied to pay the doctor's fee cheerfully, and recommend the healer to his friends, the doctor had reached his goal. There is nothing wrong with such a goal, but it stifles advances, rather than promotes them. As every successful quack has demonstrated, since the beginning of time, in fact, to "kiss the patient and pinch his poke" is the sole ambition of every charlatan, but it has never been the ruling passion of those who have advanced medicine. For among us, there has always been a group to whom real service to the sick has been uppermost, and these have kept medicine on the onward march. But, in order to make real consistent progress in the healing of the sick, the majority of physicians must don the mantle of those few, who seek above all, the real lessening of disease, the real curtailment of suffering, the real shortening of illness, and the ever decreasing cost of treatment. The word "real" is stressed purposely, because, so far as therapeutics go, all of us seem at times to be living in the "pre-fig leaf" stage, to the extent that we are unable to separate good therapeutics from the bad. Our will to cure is so strong within us, that we harden our hearts to our failures, and boisterously appropriate any improvements as of our own making. So long as our criteria of success in the care of the sick is limited to our patient's credulity and our own quixotic imagination, so long will medical or surgical treatment remain mostly empiric.

*Presented before the Polk County Medical Society, Des Moines, April 26, 1927.

What I mean is, that surgeons may loudly proclaim the aseptic scalpel as the cure of all the ills of mankind, and medical representatives may vehemently assert that an injection of German milk will banish sickness from the earth. Yet, such faith does not constitute a cure, for it is quite possible for both the doctors and their patients to be in dead earnest in their beliefs in a certain procedure, and still it may be entirely worthless.

In addition to the possession of a mastering passion for the real conquest of disease, it is of prime importance to the advance of therapeutics, to have an impartial and accurate standard for the evaluation of any and all forms of treatment. The first step to take, in order to lift therapeutics out of its present slough of empiricism and put it on a firm scientific basis, is to form a series of postulae, which will do for the treatment of disease what Koch's postulae did for bacteriology; that is, act as a balance in which old and new systems of therapeutics may be weighed and properly evaluated.

Consider, for a moment, what an impartial and accurate measuring rod would do to the heterogeneous multitude of methods and procedures now in vogue by our profession. Every thinking practitioner carries in his mind constantly, a doubt as to the value of many of the therapeutic procedures he is forced to employ against disease. Even if he is so far gone in senile egotism as to be perfectly satisfied with the remedies he himself uses, he will at least have grave doubt about the efficacy of the particular methods used by his colleagues. At present, there is no method available for securing the proof or disproof of any doubt one may entertain as to the efficacy of the treatment used. Whether a certain mode or action comes to be adopted or not, depends largely upon how well it is advertised. Any treatment originating from the high and mighty among us, which is loudly enough proclaimed by interested business houses, or blind "Aimee McPherson" type of followers, is bound to become popular, regardless of the intrinsic merits of procedure. In fact, it seems at times that the less rational a system or a remedy appears to be, the more eagerly do the practitioners embrace it. But, if accurate criteria were available, and in use by the majority of those who are attempting to heal the sick, then the life of worthless methods would be short and stormy.

All our present practice could be submitted to such a standard, and thus we should be able to clear the decks for further real achievements, by

separating our present procedures into the valueless, the pernicious, and those of real worth. The outcome of such a separation undoubtedly would be to bury, once and for all, the numerous mummified forms of treatment, which we are carrying as dead weight today—either because they were handed down to us from the fathers, or because they were thrust upon us by energetic salesmen, or hallowed doctors. This, in itself, would be a marvelous relief to the medical mind, which is so sorely tried with the great multitude of remedies. Another effect, would be the bringing to light the degree of efficiency of those regimens that are potent, so as to have determined what actually can be expected of each type of treatment. But perhaps the most significant result of such an evaluation would be the recognition by our profession of the real status of our therapeutics. Nothing could be more salutary than to have clearly in mind, just where we fail to do that which we are paid for doing, namely: to benefit and cure the sick. Would that the name of every disease for which we have no help were engraved in the heart of every medical student in such a way that he could never forget it, so that our very helplessness might challenge his bright young mind to invent or discover some real way of combatting it.

In the same way, the knowledge of the small benefits which accrue to the sick from some of our procedures of real worth, should be well known, in order that the profession might constantly seek to improve them. Lastly, such a standard would be available for the evaluation of every new remedy before it could be seized by the laity or profession, and exploited as a cure-all in an orgy of faith. The result of getting the actual facts about therapeutic agents, would be the depriving of the remedial commercial houses of profit to which they were not entitled; the prevention of the would-be medical god from getting an acclaim he had not earned; and giving the actual benefitter of mankind the credit due him, and to humanity as a whole, the benefit of the efficacious, while freeing it from the danger, expense and inconvenience of the spurious.

But what, you may ask, is this standard that is capable of lifting therapeutics out of its present uncertainties into a progressive future? Would that I had the sagacity of formulating such a standard. It is, unfortunately, one thing to be conscious of a need, and entirely another to be able to supply the want. I am not capable of promulgating either the general laws that will be needed, nor the special criteria that must be

employed in the determining of the real value of the various forms of treatment. What I desire to do, however, is to call your attention to some of the factors that must be taken into consideration in formulating a therapeutic standard.

No human notion has been more thoroughly disproven during the last hundred years, than the statement in our Declaration of Independence, that all men are born equal. As our knowledge about heredity increases, it becomes more and more evident that the gens from which we sprang play the star role in shaping our ends and determining our destinies. Certainly our ability to cope with disease is, to a great extent, decided before we are born. It is becoming increasingly clear that a certain percentage of humanity is born susceptible, not only to allergic diseases, but to practically all forms of ailments. Naturally, the result of any potent form of treatment used in a susceptible group, would be far different from the effect brought about in normals. Again, there are individuals born hyper-resistant to certain diseases and a therapeutic regimen used on such individuals might show excellent statistical results that were absolutely false. Besides born susceptible or resistant to individual diseases, there are evidently people in whom it is very easy to disturb the health balance, people who readily fall victims to any form of disease, and also persons who are very resistant to any form of sickness. Similarly the recuperative powers of an individual may vary radically from those of his neighbors. Therefore, our failures may not rightly be laid at our doors, nor may we, with justice, gloat over our cures unless the hereditary factor has been fully accounted for. But even if we were born equal, which we are not, the individual's experiences as he travels through this vale of tears, are so widely different from those of his fellow, that the therapeutic response would at all times be different from a calculated norm. Hence, in the computation of the result of any treatment, the individual's inherited, as well as his acquired peculiarities must be accounted for.

Another factor of supreme importance in the evaluation of any form of therapeutics, is a knowledge of the natural course of a given disease. What would happen to a case of typhoid, pneumonia, cancer of the breast, or any other disease, if left alone, must be known. The available information on this vital phase of medicine is lamentably fragmentary, and publications on this subject, even excellent ones, such as those of Kessel¹ and his co-workers, on the natural

course of exophthalmic goiter, are met with indifference or scorn, in spite of the tremendous importance that such studies have to the actual sufferers. I wonder if the unpopularity of research into the field of the natural history of disease, is not due to the general fear that when the actual facts are known, the homage and offerings which flow from the ignorant to our false prophets would greatly diminish. An illustration of what might happen in many diseases is shown in the case of tuberculosis. The propagandists for the prevention and cure of tuberculosis have vociferated long, and have pointed with great pride to the striking reduction in the morbidity and mortality of this disease, and have claimed unblushingly that it was all due to their efforts. But now come reliable statistics from countries where no propaganda whatsoever has been carried on, showing every bit as great a reduction as we can present. How many times has a certain remedy or a certain procedure, been given the credit for the halting of an epidemic that was dying a natural death, or for stopping a disease which terminated naturally at the time the remedy was administered? Yet, how in the name of sanity, is it possible to know the effect of any drug, unless we know absolutely what would have happened if it had not been administered?

In addition to the influence of heredity, the patient's own health status, and the natural course of a given disease, there is yet another force which acts effectively for the practitioner in his effort to cure the sick. This factor is rest! The surgeon, who removes an inflamed appendix, does not cure his patient, he merely removes an important obstacle, which permits the body cells to overcome the infection. Similarly, when digitalis is given to a water-logged patient, it is the rest obtained by the fatigued heart, that improves the circulation. So that, in the last analysis, it is the body's own powers, that bring the individual who is listing from disease, back on right keel once more.

The profession has been aware of the therapeutic value of rest, from the very beginning of medical history. Even 2000 years ago, when spiritual healing was the orthodox way, the laity seems to have been aware of the healing qualities of rest, for when Jesus informed his disciples that their sick friend Lazarus was sleeping, they immediately came back with, "If he sleeps it is well with him". At the present time, rest is a part of the vast majority of all attempts to heal the sick, and although it is a distinct form of treatment, and indeed, often the only rational

1. Hyman, H. T., Kessel, L.: Studies of Exophthalmic Goiter, etc., Archives of Surgery, 8:149, 1924.

form available, it is nevertheless discussed here, because the results secured from rest alone, should not be credited to other forms of procedure.

It is not so difficult to comprehend the rationale of the beneficial action of rest, whether it be local or general. The maximum activity of each cell seems to be fixed for the individual, and is manifested in its bi-phasic metabolism. In health, the anabolistic processes and the katabolistic activities balance each other. It is possible for the anabolistic changes to overbalance the others for long periods, without disturbing the health in any way. On the other hand, the katabolistic changes cannot predominate except for short periods without giving rise to retrogressive changes, which terminate in necrosis of the individual cells, if the trouble is of local character, and in death of the person, if the katabolistic processes are general. In disease, katabolism has the upper hand, using up more than the normal share of cell activity. This, in the most severe, the fatal forms, amounts practically to a confiscation of every available activity for the work of tearing the individual asunder. Any one who has watched a patient die from thyrotoxicosis, or from tetanus, will retain for the rest of his life a picture of katabolism running rampant. In other diseases, the bankruptcy proceedings of the cells are not so conspicuous. Yet, the normal balance has been overthrown, and the disturbance will be aided and abetted, by putting other influences to work, which are also katabolistic in nature. Such influences, are physical or mental work, worry, difficult digestion, the irritation in skin diseases or in fractured bones, and any other form of disturbance which entails unnecessary expenditure of energy, that should have been used toward the restitution of health. Hence, the prime need is local rest, if the trouble is local; and rest for the whole body, if the disease is general.

Animals are so fearfully, wonderfully made, that rest in disease is often enforced against the individual's will. Thus the animals, often at great exertion, hunt out a safe place to rest when they are sick, and remain in seclusion to give their own reparatory power the best chance by avoiding the use of energy for defense, and saving even the effort required to find food. In the human, rest is most effectively forced upon us by the tenderness in an inflamed skin that demands being left untouched, by severe pain in a diseased joint or bone, by a most discomforting malaise in fever, and by anorexia

that relieves the tissues of digestion from carrying on their normal work, when they are having all they can do, keeping from being destroyed by the katabolistic processes of disease. The dire consequences which follow, when an individual chooses to disregard the warnings of nature, and continues to squander his energy in face of sickness, are too well known to practitioners of medicine to be dilated upon here. Once in a while, an idea that exercise will help cure disease gains credence, as, for instance, the teaching that graduated work would stimulate the formation of immune bodies in tuberculosis. But the deleterious results of such practice are so obvious that it never becomes popular.

The value of rest is admitted by all physicians, and the application of the principle involved is yearly being extended, until at the present, rest, in some form, seems an integral part of every form of therapy. It is just this that makes it so vitally important to get a proper valuation of the rest treatment. What are its actual limitations? When the borders of its influence have been clearly mapped out, then we shall have traveled a long way on the road of scientific therapy. One is astounded at the paucity of articles dealing with this important subject, in an age when a poor practitioner trying to keep abreast of the times, is inundated with pages of medical stuff. Articles on "rest" are fairly abundant, but they deal in glittering generalities, make large claims and assertions, but as a whole are woefully lacking in any tangible proofs of their assertions. A striking exception to this state of affairs is found in the work reported by Kessel, on the effect of rest in the treatment of hyperthyroidism. So far as can be ascertained by reading the articles, their work has been most carefully executed and controlled. The results obtained by these investigations are so striking as to shriek aloud for repetition by others, for the purpose of refutation or confirmation. But instead of this being done, the articles seem to be slowly and painlessly killed by simply being ignored by those who are especially interested in the treatment of these conditions. If it is true, as these investigators claim, that rest alone will do as much good for sufferers from hyperthyroidism as any other form of treatment in vogue at present, then why in the name of Heaven do we continue to submit the unfortunates to the dangers, discomfort and expense which our present *modus operandi* requires? And, on the other hand, if the results reported are false, then, because they are so well executed, so plausible, and so convincing, why are they

not equally convincingly refuted by able men, lest some patients may be deprived of even the succor we are able to offer them today?

The need of the proper valuation of rest alone is just as apparent in other diseases. Those of us who have watched the highly diversified panorama of the treatment of tuberculosis unfold itself in the last two decades have been amused and saddened too, by the vociferous acclaim given each in their turn; the employment of drugs, the use of vaccine, the use of tuberculin, the change of climate, the fresh air cure, overfeeding, sunlight, and now, lastly the Alpine ray. Any one who dared to question, ever so mildly, the efficacy of any of the treatments mentioned when they were "à la mode", was promptly, and by many willing hands nailed to the cross reserved for such Bolsheviks. And yet, it was the rest and drugs, rest and open air, rest and antigens, and even today rest and rays.

One more example taken from the most modern therapeutics will suffice to make my point clear. There is in vogue today among "stomach doctors", a new fangled gastroentero-specialist method, for giving epsom salts for the cure of epidemic jaundice. It goes under the charming name of duodenal lavage. In reality, the procedure is but the substitution of a duodenal tube for the one we were born with, to pour a solution of magnesium sulphate into the intestines. Just why the natural tube could not be used passeth my understanding, but that is really beside the point. What I wanted to bring out, is this: Catarrhal jaundice is a self limited disease, without pain or much inconvenience to the patient. A hundred cases of this type could be left on rest alone to ascertain the average time that the disease runs. Then another hundred could be given the lavage and the actual value of the procedure determined. So far as I know, this has never been done.

Examples like these just given might be multiplied, but enough has been cited to prove that rest plays an important role in most of our cures, and it seems highly probable that often, when the credit for a happy result is given to some new fangled cure, the result is due to the rest cure alone.

I have tried to point out that it is essential to take heredity, the patient's own condition, the natural history of the disease, and the value of rest all into consideration, before the worth of any therapeutic method may be ascertained. There are doubtless other influences, which also play a part in the battle for health. No doubt these will be brought to light when the pro-

fession once has gotten into the habit of scrutinizing therapeutic results, as we now test our diagnoses.

In addition to the general criteria that apply to all diseases, the individual morbid process has certain special characteristics that effect the progress and severity of the condition. These must be accounted for, too, before credit for a cure, or censure for failures of a particular method are given. One example will, perhaps, make my meaning clear.

In the treatment of hay fever, everyone who watches his results, is struck with their variability. One season, brilliant results are obtained, that is, 70 to 90 per cent of treated individuals experience great relief, but perhaps the next year only 30 per cent get relief, in spite of the fact that the technic and the extract were identical. The discrepancy noted is easily explained, however, by the pollen concentration during the hay fever seasons. That is, in the years of excellent results most of the pollen is washed to the ground by frequent rains, whereas, in the poor seasons, the pollen concentration of the air remains continuously high, due to persistent sunshine.

I am willing to grant that it is a difficult task to construct for therapeutics a measuring rod made up of the elements that have been mentioned. It is not an easy thing to evaluate the influence of heredity, to tell exactly what the patient's own powers of combatting disease actually are, at the moment he is taken sick. And much work must yet be done before the natural course of a given disease is accurately known. Similarly, the value and limitations of rest are as yet to be ascertained, but medical knowledge has now reached such a state of development that the criteria alluded to may be worked out, provided that the rank and file of the practitioners are willing to search for the truth, and do not, ostrich-like, stick their heads into the shifting sands of personal, prejudiced, clinical experience.

WILL MEET IN CANADA

The Council of the British Medical Association at its recent annual meeting in Edinburg, approved the recommendation to hold its annual meeting in 1930 in Winnipeg, Canada. The annual meeting in 1929 will be in Manchester, England. Sir Robert W. Philips of the University of Edinburg is president of the Association for 1927-1928.

ON THE USE OF GOLD IN THE TREATMENT OF TUBERCULOSIS

J. W. KIME, M.D., Fort Dodge
Superintendent, Boulder Lodge Sanatorium

During the past three years I have placed in the literature three or four articles on the use of gold in tuberculosis. I desire at this time to bring my conclusions, based upon this experience and observation, down to date.

First, gold in the form, manner and dosage in which we have used it, is wholly free from harm to the patient.

Second, it has a marked selective action upon tuberculous tissue as indicated by the sputum during the course of treatment.

If the drug be pushed too far, there has been seen in a number of cases, a tendency to over determination of blood to the parts as indicated by rusty sputum or hemorrhage. Within the bounds which we have prescribed, there has been no inconvenience in this way. Pushed beyond such limits, we should proceed with caution for fear of hemorrhage.

This very determination of blood I believe has much, if not all, to do with the process of repair which takes place in all cases not already too seriously advanced when they come under observation.

Patients in the first two stages of the disease—the incipient and moderately advanced—may practically be assured of recovery if they may remain in the sanatorium for one year. Really incipient cases, which we rarely see, have returned home under observation after three months in the sanatorium, and have remained apparently well. Moderately advanced and considerably advanced cases must remain under treatment in the manner prescribed in the sanatorium, for not less than one year. All the benefits of the sanatorium regime must, of course, be utilized to hasten and to assure the recovery of the patient, no matter what form of medication be used.

Under such conditions, I believe that gold is just as specific for tuberculosis as mercury is for syphilis, and we feel fully justified in assuring such patients that they will recover.

The same trouble is experienced here as elsewhere, that patients feeling improved, go home, or go climate chasing, and soon find themselves where they were before. Success comes only to those who have the intelligence to remain under care the time necessary to effect results.

We think nothing of three years under mercury, and do not condemn the drug as non-spe-

cific because a few doses do not effect a cure in syphilis. All that we claim for gold is that, given a reasonable length of time, it is just as specific in tuberculosis as mercury is in syphilis.

Our experience during the past three years fully warrants this statement.

Such patients, without any exception, have shown response to treatment within the first few weeks, in the lessened cough, diminished expectoration, reduced temperature and heart rate, the taking on of weight and the gradual disappearance of rales and other physical findings.

So uniformly have these patients responded to treatment in this manner, and so strikingly different from our former experience, that we are more than convinced that gold has specific properties in tuberculosis fully equal to the specific properties of any other drug in any other disease.

The consumptive patient, the terminal stage case who suffers more from his collateral troubles than from his main disease, will probably always remain in the hopeless class where now he is.

It is, of course, a mistake to assume that because immediate results are not seen, there is no virtue in the methods used. Patience is as necessary here as in any other field of medicine. Not only must the active process be stopped but the structures destroyed must be repaired.

Our laboratory studies under the use of gold have been exhaustive. The sputum of every patient is examined every day, and comparison has been made with hundreds of slides made in other laboratories in other sanatoria for this disease.

There are changes in the laboratory findings that are characteristic of gold. First, the polymorphonuclear cells are much more perfect in outline, the protoplasm taking the stain and the cell standing out clear and distinct. Many of these cells are highly phagocytic, often being completely engorged with tubercle bacilli. Many such phagocytes show only fragments and debris of tubercle bacilli.

There is a much greater tendency for the bacilli to be thrown together into clumps and bunches than is usually seen and frequently great masses of bacilli in pure culture are found after the use of gold. I have never seen these under any other circumstances.

The tubercle bacilli grow fewer in number, but they do not wholly disappear until healing is complete, as is evidenced by the disappearance of sputum.

The bacilli appear early to lose their virulency and power to do harm to the patient. Although still present they interfere but little with the

progress of the patient toward recovery. The soil upon which they have luxuriantly grown appears to have lost something which was vital to the interests of the bacillus. They become thin, thready, pale, broken and often so fine as to be almost invisible under the power we generally use, $1/12 \times 2$ inches.

IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines
Commissioner, State Department of Health

PREVALENCE OF COMMUNICABLE DISEASE

During the thirty days preceding January 20, the communicable diseases which have been chiefly prevalent in Iowa are smallpox, chickenpox, scarlet fever, colds and influenza. There has been a moderate number of cases of measles, mumps, whooping cough, diphtheria, and pneumonia and a few cases of typhoid fever, poliomyelitis and cerebrospinal meningitis.

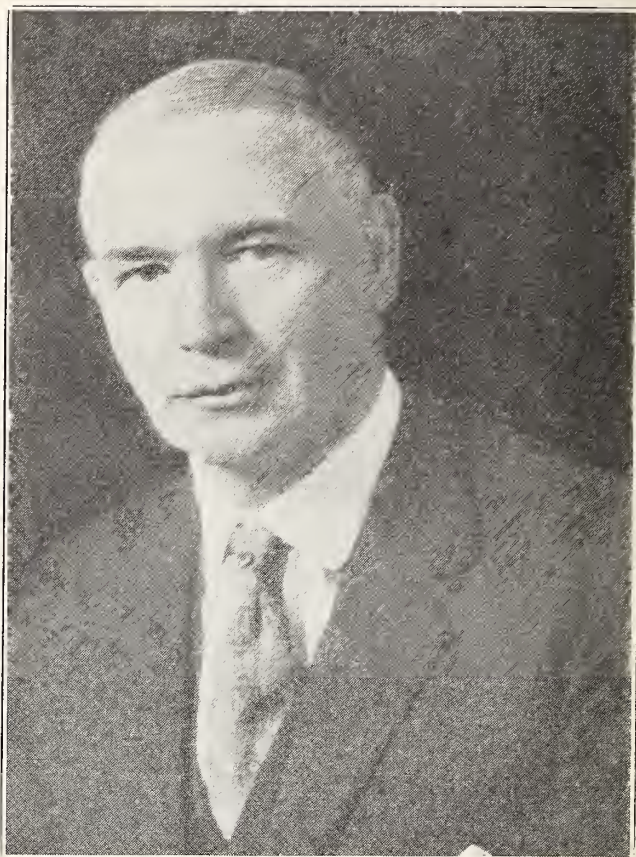
Smallpox and *chickenpox* continues to prevail chiefly in the southwestern portion of the state. Chickenpox, on the other hand, is occurring chiefly in the northeastern portion. In a few places the two diseases appear to be co-existent. Whenever such is the case we always advise vaccination against smallpox in a wholesale manner.

Pneumonia, on the basis of deaths reported to date, appears to be somewhat less prevalent than usual. It is, however, well to remember that we are just entering the period of the year—the first three months—when pneumonia is most prevalent. The campaign to reduce the number of cases of colds ought to also reduce the incidence of pneumonia. Then also physicians are more and more cautioning people regarding the infectious nature and communicability of pneumonia.

DR. D. C. STEELSMITH APPOINTED DEPUTY COMMISSIONER OF HEALTH

Dr. D. C. Steelsmith, health officer, Dubuque, Iowa, has been appointed deputy commissioner of the State Department of Health, effective February first, to succeed Dr. J. W. Wallace, who has accepted a position as field representative of the American Public Health Association.

Dr. Steelsmith received his medical degree from the University of Iowa in 1902. He practiced medicine in Melvin, Iowa, for fifteen years when he went into public health work. He completed a special course in public health work at Harvard University in 1917. After serving a year in special war-time public health work at



DR. JAMES W. WALLACE

the University of Iowa, he went to Alabama where he served as county health officer on a full time basis for four years. Returning to Iowa, he became the health officer of Dubuque (both city and county).

NEW REVISION OF QUARANTINE REGULATIONS Or as better expressed

*The Rules and Regulations of the Iowa State
Department of Health Relating to Communi-
cable and other Reportable Diseases*

On October 1st the new regulations went into effect. A copy was sent to every physician in the state. If there is any physician who has not received a copy, one may be received on request to the State Department of Health. The edition is limited. It is therefore exceedingly desirable that the copies should be carefully preserved.

These rules provide the necessary information regarding the reporting of disease and the placarding, quarantining and disinfection of premises where cases of communicable disease exist.

The forty-six reportable diseases listed in the rules are arranged in alphabetical order and under each heading is given the essential data as to what should be done with the case and those who have been exposed; also the method of terminat-

ing quarantine and some general measures to control the spread of the infection.

Of the forty-six reportable diseases, quarantine is required in only ten, namely, cerebrospinal fever, diphtheria, cholera, leprosy, poliomyelitis, plague, scarlet fever, smallpox, typhus fever, and yellow fever. Seven, namely, chickenpox, encephalitis lethargica, measles, German measles, mumps, and whooping cough, are subject to placard but not to quarantine.

The following represent the more significant changes in the new as compared with the previous edition:

1. Three diseases, namely, Malta fever, pellagra, and acute rheumatic fever have been added to the list of reportable diseases. *Malta fever* of the form caused by one of the three types of bacillus abortus has been found in a sufficient number of cases to make it worthy of serious consideration. The State Hygienic Laboratory at Iowa City obtained positive agglutination tests in sixteen cases during the past year. The Malta fever of Iowa is not caused by the bacillus melitensis which is more common in the southern states and is transmitted through goat's milk. It is, as already indicated, caused by the bacillus abortus which produces abortion in the lower animals. There are three types of the bacillus abortus: one affecting sheep, another cattle, and a third one hogs. To differentiate the type requires the application of agglutination absorption tests.

Pellagra, although not regarded as an infectious disease, has been added to the list of notifiable diseases since it is well worth while to learn of the number of cases of pellagra that develop in the state, and the conditions under which they develop.

Acute Rheumatic Fever is an infectious disease although we are not as yet certain of the specific microorganism. It is not readily communicable. There is, however, sufficient evidence of its communicability that it is desirable not only to have it reported but to have precautions taken against its transmission to other persons. Acute rheumatic fever appears to be responsible for about 25 per cent of all deaths from heart disease. From this point alone, it would seem worth while that precautions against the spread should be taken. The reporting of acute rheumatic fever is done in but few places. So far as we know, Iowa is the first state in the union to add it to the list of reportable diseases. Information regarding its prevalence as well as location should be worth while. None of the

three new diseases added to the reportable list are subject to placard or quarantine.

2. *Cerebrospinal Meningitis*. The old regulations required that quarantine against cerebrospinal meningitis shall not be terminated until "two nasopharyngeal cultures taken after recovery, twenty-four hours apart, do not reveal the diplococcus intracellularis meningitidis". The new ones do not make such cultures compulsory. It is recognized that the making of cultures is a valuable procedure both for the discovery of carriers of the organism and to determine if the organisms are still present in a patient who has recovered from the disease. Such cultures should certainly be made at all hospitals and in the larger cities where local laboratory facilities are available. There is, however, such great difficulty in the growing of the organisms especially under the conditions necessary for transmission to a distant laboratory, that the results of the culture are liable to be quite misleading. It is felt that it is better, especially in communities where there are no local laboratory facilities, to depend on the minimum time limit of fourteen days and complete clinical recovery of the case.

3. *Diphtheria*. Persons who have recovered from diphtheria may continue to harbor the germs in the nose and throat for a long time. The rules provide that after twenty-eight days of quarantine such a person may be officially declared a diphtheria carrier. Quarantine may be terminated but the movements of the carrier will be subject to rather definite restrictions as outlined in the rules. The old rules provide that "Whenever the period of quarantine and the period of isolation as a carrier extends for more than eight weeks, the situation should be referred to the State Department of Health for disposition". The department, under such conditions, usually advises release of the carrier on condition that they do not go to public gatherings, do not handle food, and report every week to the physician for a culture and further advice. The new rule states that "if cultures continue to be positive for longer than five weeks from the onset of the disease", (which means four weeks of quarantine and one week of isolation as a carrier), a virulence test may be made to determine whether or not the organism is capable of producing disease. Such tests are made on guinea pigs. They may be made at the State Hygienic Laboratory at Iowa City. If the virulence test is negative, the patient may be released at once, if positive or if no virulence test is practicable, the local board of health may allow a restricted release according to which the patient agrees, (a)

not to attend any public or private school, church, picnic or public gathering of any kind, (b) not to handle food or dairy products offered for sale, and (c) report at least weekly to his physician for culture and treatment to end the carrier state. This means that under certain conditions patients who, under the old rule were obliged to remain in quarantine or isolation for eight weeks, may under the new rules, be liberated at the end of five weeks.

4. *Scarlet Fever*. The provisions relating to immunization has been changed somewhat. The new regulations recognize that there may be merit to certain methods of effectively immunizing against scarlet fever by means of a toxin which does not require five doses for the completion of the immunizing process. According to the old regulations a school child in order to be regarded as immune on the basis of effective immunization with scarlet fever streptococcus toxin, was obliged to take the immunizing doses over a period of five weeks and the last dose must have been six weeks prior to the establishment of quarantine. According to such, the child must have begun the immunization process eleven weeks prior to quarantine, otherwise, if exposed, the child was obliged to remain out of school for at least one week. The new regulations provided that if one week has elapsed after the immunizing treatment was completed, the child may be released on the same basis as adults, namely, instructed, disinfected, and released to live elsewhere. Such a child may return to school at once.

5. *Smallpox*. The period of quarantine of persons who have been exposed to a case of smallpox but who are not immune as defined in the regulations has been very markedly reduced provided vaccination is performed within twenty-four hours of the time of exposure. The old regulations state that such a person "may be released from quarantine twelve days after a successful vaccination. Figuring that it will take on an average of at least three days to determine whether a vaccination is going to be successful, the period is extended to about fifteen days. The new regulations state that a person "may be released from quarantine if vaccinated within twenty-four hours of exposure—as soon as a successful take or an immune reaction is evident". Since the immune reaction may be evident within twenty-four hours, such person may need to be kept in quarantine for only two days. If, on the other hand, a typical vaccination develops, the period of quarantine may be extended to four or five days.

The new regulations place special emphasis on the significance of an "immune reaction". Physicians in general have paid but little attention to such. It is, however, a reaction of great importance. The new regulations also describe somewhat in detail the three types of reactions which may follow vaccination, namely, vaccinia, vaccinoid, and immune reaction.

6. *Whooping Cough*. The minimum period of exclusion from school or other public places was raised from fourteen days as found in the old regulations to twenty-one days. This change was made because whooping cough is communicable not only during the early catarrhal stages before the characteristic whoop develops but also for at least three weeks after the whoop makes its appearance.

7. Table showing the length of the period of incubation, placarding, quarantine, and communicability, is inserted as Appendix No. 1 in the new edition.

8. Appendix No. 2 presents "A Few Efficient Disinfectants". In this connection it will be noted that the regulations do not require disinfection with formaldehyde or any other gaseous disinfection on the termination of quarantine. Regarding such the following statement is made: "Fumigation with gases is not recommended except where insects are to be destroyed or in special circumstances. It is considered wise by some, for example, to fumigate a room where a case of pulmonary tuberculosis has been housed, before the persons begin the thorough cleaning and renovating that should be done".

9. Appendix No. 3 deals briefly with insecticides for destroying flies, bugs, roaches, lice, etc.

10. On the inside of the back cover attention is called to a report recently made by the committee on Standard Regulations for the control of communicable diseases of the American Public Health Association. This report has been issued in the form of a vest pocket edition which may be obtained by writing to the American Public Health Association, 370 Seventh avenue, New York City, New York. The price is 25 cents. It would be well worth while for every physician, certainly every health officer, to have a copy of this report to supplement the rules and regulations of the State Department of Health.

11. Those who consult the above report of the American Public Health Association on the control of communicable diseases will find "that their definitions of 'Isolation' and 'Quarantine' are not in accord with the definitions in the rules and regulations of the Iowa State Department of

Health. The reason for this is that 'Isolation' and 'Quarantine' have been defined in the Iowa code and these rules and regulations have to conform to the code definitions."

The American Public Health Association Committee restricts the use of "Isolation" to persons infected with a communicable disease and "Quarantine" to well persons who have been exposed, whereas the Iowa code's definitions almost completely reverse this usage.

The department has under consideration the revision of the wording in our laws by the next legislature in order that the terms used in our law may conform more nearly with those in common usage throughout the country.

VENEREAL DISEASE CLINICS IN IOWA

Dr. O. C. Wenger of the United States Public Health Service recently completed a survey of the venereal disease clinics of Iowa. Clinics or "potential" clinics are located at Burlington, Clinton, Council Bluffs, Davenport, Des Moines, Dubuque, Fort Dodge, Grinnell, Iowa City, Keokuk, Manly, Marshalltown, Mason City, Muscatine, Ottumwa, Sioux City, and Waterloo. His conclusions are as follows:

"1. As a result of the survey, it is evident that a great deal more ought to be done in the State of Iowa to combat venereal disease and to provide adequate means of treatment for indigent cases.

"2. In order to provide for adequate care and treatment of indigent cases, as well as to stimulate interest in venereal disease control measures in general, there should be as a corporate part of the State Department of Health, a definite Division of Venereal Diseases.

"3. That this report be presented to the State Board of Health at their next regular meeting, and that it be made clear to the general profession, that even though no state funds were available to assist local clinics, the interest of the State Board of Health in these local clinics has not waned, and that it is the sincere desire of the State Department of Health to cooperate with all local health officers and clinicians in their venereal disease problems.

"4. Social organizations should be informed that in their functioning they should not encroach upon the legal authority of the local health officer.

"5. It is recommended that all clinics submit a monthly report of their activities in duplicate, through the local health officer, who in turn will forward the duplicate reports to the State Department of Health.

"6. That free Wassermann service be reestablished in the state, not only for clinics, but for private physicians as well; as is now being done in other states.

"7. A uniform simple standard record be prepared for use in the different clinics in the state. These records to be supplied by the State Department of Health.

"8. That the local medical society be consulted as to the most suitable location for the venereal disease clinic, and it is suggested that wherever it is convenient, the clinic be located in a local hospital. That the local medical society should also be consulted in regard to the general policy and conduct of the clinic.

"9. That an effort be made to call the attention of all physicians to the state law governing venereal disease, and that such cases be promptly reported to the local Board of Health. There should also be included the reporting of all cases of ophthalmia neonatorum.

"10. That wherever practicable, programs of education in regard to venereal disease be carried out locally, not only to secure a more complete reporting of cases, but to induce all persons infected to seek early treatment.

"11. In order to provide continuity and permanency in the venereal disease program, each community should realize that the responsibility of maintaining and supporting this program rests entirely on their own efforts and financial support.

"12. The survey would seem to show that permanent clinics might be established through the cooperation of the State Department of Health and the local authorities, with the aid and support of county medical societies and social service organizations in most of the cities considered in this survey. In each of these places there is a nucleus of interested organizations that might be induced to take over the program."

PYELOGRAPHY

Recently Neo-Silvol has been suggested and used with very gratifying effect in the making of x-ray pictures of the kidney pelvis. It has many outstanding advantages over other salts commonly employed for this purpose. First, it is easy to prepare; second, it makes clear shadows on x-ray films when used in 20 per cent solution; third, it soothes rather than irritates the tissues; fourth, it is distinctly germicidal in quality; fifth, it is non-toxic.

Neo-Silvol is colloidal silver iodide, with a general phenol coefficient of 1, a gonococcide coefficient of 20. It is manufactured by Parke, Davis & Co. and supplied in granules and in 6-grain capsules for convenience in making up solutions of desired strength.

The Journal of the Iowa State Medical Society

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Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVIII February, 1928 No. 2

"MEDICAL ECONOMIES"

In a recent number of the Journal of the American Medical Association, Dr. M. L. Harris of Chicago, publishes an able paper on "Medical Economies", a paper well worth reading. There is no one in the medical profession who can speak with greater authority on subjects relating to the profession. Dr. Harris represents the older group of surgeons, one who has reached a high place as a surgeon and unusually successful in a financial way. He began practice at the beginning of the new era of medicine and has followed the advanced ideas. The advanced methods in practice are without doubt extremely well represented by the younger members of the profession, but there is a certain element of wisdom remaining among the older men, as represented by such men as Dr. Harris.

We are frequently informed that doctors are not good or successful men in business and this allegation is offered as a reproach on many occasions. But are all men in business successful or good business men? Is it not true that only a small proportion of men in business are successful? We are inclined to believe that doctors get along about as well as other business men do. Doctors are not many who have accumulated millions in their practice or business, of course something must be said as to what constitutes success in business. If success is measured by the accumulation of millions, then there are but

few in any class who are successful and here the doctor falls out. If success is measured by comfortable living and the leaving of enough to provide for family and dependents, in our opinion that man is successful and a good business man, whether a doctor, merchant or an industrial. If a man's estate consists of large life insurance policies only, the wisdom of that kind of investment is good business as much as bonds and stock and industrials. Really it seems that doctors in business do about as well as other people.

Dr. Harris admits that doctors do not know as much about the technology of business as the so-called business man. That is probably true, but if he has intelligence he will do as other people do, he will seek advice from those who do know. All classes do that; if it involves a law point, a lawyer is consulted. Doctors are gullible as to the investment of money—so are others.

As we read Dr. Harris' paper we think we see where he finds the weak point in the doctor's skill and ability as a business man. It lies, we believe, in his lack of skill and courage in managing or controlling his relations to the agencies of his profession. First, and most important, perhaps, is his willingness to accept a position as an "adjunct" to a hospital, for instance, instead of demanding rights. It is said that the hospital is the doctor's workshop. It is of course admitted that no good business man would consent that the vital agencies in the conduct of his business should remain in the hands which would consider him only as an "adjunct". Most hospitals are in the hands of laymen who only regard the doctor as a necessary agent or "adjunct" to the hospital but no part of the hospital. Most doctors know this, but have not the courage or sense to demand certain rights and thus substantiate the claim of not being a good business man, but here is a mitigating circumstance, the inability of the profession to agree on a plan of professional control. The failure is sometimes due to selfishness of some favored member of the staff who is thinking more of personal interests than the interests and dignity of the profession. This is wherein professional men and business men differ. However much jealousy may exist among the members of a business organization, the members will join in serving the interests of the association, for it is an accepted fact that the interests of the association are the interests of the individual members thereof.

Business organizations find advantage in combination and association. This is evidence of good business. But doctors are individualists and generally cannot work together, and this is

evidence that they are not good business men. They are often employed by business organizations for one purpose or another, at terms dictated to them.

The practice of medicine, at the present time, at least, cannot be measured by the standards of business methods. Except in combinations, the services are personal and under conditions of loose organization and must remain so. There is evidence, however, to show that conditions are changing, that the close personal relations of physician to patient are not the same as in former years; the family physician relations are disappearing. It does seem that physicians could get closer together and by agreement and association escape the subordinate position which they now occupy—escape the reproach of not being good business men.

SURVEY OF THE MENTALLY DEFICIENT

A Massachusetts survey of the mentally deficient seems to show that the feeble minded most frequently occur among the first born. A report by Dr. Dayton of Boston covering 4,040 cases examined, brought out this astonishing fact. This finding so contrary to the generally accepted belief led the Illinois Medical Journal to review this report in some detail and states in part as follows:

"The survey was made under a Massachusetts law authorizing the examination of all public school children who are retarded three or four years in their school studies. Fourteen traveling clinics went through the state for this purpose and Dr. Dayton's report covers the first 4,000 examined. The survey shows clearly that a number of generally accepted ideas regarding the deficient children are untrue."

Secretary, State Board of Health,
Springfield, Illinois.

Dear Doctor:—

What is the consensus of opinion of physicians in Illinois regarding the training of nurses?

Apparently many of us are beginning to feel that the course is growing top-heavy; that we are making half-baked doctors out of the average nurse; that our system is providing a nurse for but two classes—the pauper, who is furnished a nurse at public expense, and the few rich—but the great middle class, constituting the greater portion of all, cannot afford the "specialist" nurse that we are attempting to make of all nurses.

As I get the opinion of many physicians we should have a sane standard, and that two years, with a probation period of three to six months first, to

make proper selection—making a period of $2\frac{1}{4}$ to $2\frac{1}{2}$ years quite a sufficient time for a well-balanced, general nursing course. Even the three year course is not so objectionable if the third year senior nurse is given a little consideration in the way of compensation, moderate of course, but so that she may live in reasonable respectability—for it is not the well-to-do who take up nursing, but rather those girls compelled to earn their own way and oft-times assist in supporting a needy family in addition. Then those who desire to do some special line of work after completing the regular course, can take such post-graduate preparation later, just as doctors prepare for special lines.

There are several patent reasons why the nursing profession is more rapidly depleted than almost any other profession, as for example, those who soon become discouraged and drop out; some found to be misfits; lack of physical endurance for such strenuous work; and the biggest factor of all and that applies in like degree to no other profession—the larger percentage who get married and drop out early in their professional career. It is quite obvious that the expense for all this preparation, the unnecessarily prolonged and exacting course and those who complete the course and serve but a short time, must be paid for by the public, whom the nurse serves. Another injustice is making it prohibitive for many of the small hospitals and training schools to exist. This in turn, would react upon many communities that are entitled to hospital facilities and practically deprive them of such privileges except as they travel long distances to secure same—an impossibility for a large portion of our population.

This is not a plea for a cheap standard, or to depreciate the humane, noble and most sacrificing service rendered humanity, that rendered by the professional nurse, but rather a plea for a consideration of mutual interests: first, that so much is not exacted of the nurse, that she is pauperized for many years from the beginning of her training course; and second, having a heart for the great mass of humanity who need a practical, sensible nursing service, and must needs sacrifice so much to secure same.

Very truly yours,

T. F. Beveridge.

HOSPITAL SCHOOL FOR NURSES GIVEN RECOGNITION

State recognition of the high rank of Saint Luke's International Hospital School for Nurses, Tsukiji, Tokyo, was officially confirmed by the Imperial Japanese Department of Education by the publication under date of November 24, 1927, of an official decree conferring college (semmon gakko) rank on the institution, the course of study being for three years, and one year extra for those taking special higher training.

The school is the first institution for nurses in

Japan to be thus recognized, no girls being admitted without a diploma from a girls' high school. Saint Luke's International Hospital is under the management of the American Episcopal Mission, its head being Dr. R. B. Teusler, surgeon to the American embassy.

SMOKE STUDIES

Smoke in the atmosphere, especially when combined with mist to produce fog, brings about a very great lowering of the daylight. At the present time a great loss of light results in large cities from the effect of smoke. A study of the decrease of light by smoke, now being made by the United States Public Health Service in New York City, at the lower end of Manhattan Island where the air is very smoky, showed, an average loss of daylight due to smoke in January of 1927, on sunny days, of 42 per cent at 8 o'clock in the morning, and of 18 per cent at noon. These amounts of loss of daylight decreased, as the year advanced, to 33 per cent at 8 a. m., and 6 per cent at noon, in June. These figures are for clear sunny days; for foggy days, the loss is much greater. The loss of light due to smoke in the atmosphere is greatest early in the morning or late in the afternoon, and least at noon. As would be expected, the loss of light is greater in the winter than in the summer. The figures given show the great importance of getting rid of smoke in our great cities. Loss of daylight or the light rays, is not the only evil resulting from the presence of smoke in the atmosphere; smoke also cuts out to a much greater extent the ultra-violet rays which are so necessary for good health.

The amount of light reaching us at different times of the day, at different times of the year, and under different conditions of weather is of interest. Illumination is measured in a unit called the foot-candle, one foot-candle being the illumination on a surface at a distance of one foot from a standard candle. Records of daylight in Washington, D. C., have been made since July, 1924, by the United States Public Health Service. These records show that at noon on a bright day in midsummer the illumination seldom exceeds ten thousand foot-candles. In midwinter at noon on a bright day it seldom exceeds 3,500 foot-candles. The difference in illumination on sunny and cloudy days is illustrated by the average illumination for such days in December, 1924, and in June, 1925. In December the average illumination on cloudy days was found to be about 23 per cent of that on sunny days. In June this ratio was about 26 per cent. Great variations in daylight take place when small clouds pass over the face of the sun on a clear day. In such cases the light may fall from 9,000, or more, foot-candles to 3,000, or less, in one minute's time, and return to the original amount during the succeeding minute.

Large increase of light may be produced by the

reflection of light from banks of white clouds to the north of the sun, and very great decreases by the heavy clouds of thunderstorms.

Sunlight is of great interest and importance, since work in the office, shop, schoolroom or on the farm is performed under it; and the preservation of eyesight, the general health, and the prevention of accidents, throughout childhood and adult life, are largely dependent upon having plenty of sunlight both inside and outside the buildings in which we live and work.

CIVIL LEGION ELECTS OFFICERS

The Civil Legion, a national organization composed of those who in non-uniformed activities rendered patriotic service to the national cause, during the World War, has held its second national convention and elected as its officers the following:

National president—Charles R. Wilson of West Virginia.

National vice-presidents—Tom Jones Meek of New York, Charles A. Howard of South Dakota, and J. C. Heinlein of Ohio.

National secretary—John P. Tansey of Chicago.

National treasurer—Frank G. Hajicek of Chicago.

National legal advisor—Hon. William Lloyd Harding, war governor of Iowa.

National chaplain—Rt. Rev. James R. Darlington, Episcopal Bishop of Harrisburg, Pennsylvania.

National historian—Miss Leafa H. Seibert of Prophetstown, Illinois.

Member of the executive committee from the state of Iowa, Hon. W. L. Harding of Des Moines.

National headquarters are at 163 West Washington street, Chicago, Illinois.

The Civil Legion is to its members what the American Legion is to the ex-service man.

SOMETIMES OVERLOOKED

Too many physicians, we fear, neglect to specify the manufacturer when prescribing such rather common but exceedingly useful products as, for example, cod liver oil. Yet differences in quality are just as marked in these preparations as in biologicals or any of the more intricate synthetic chemicals.

Taking cod liver oil as a case in point, there are of course a number of good brands on the market; but one of them contains not less than 13,500 vitamin "A" units and not less than 2,000 vitamin "D" units in each fluid ounce. The preparation referred to is Parke, Davis & Co.'s standardized cod liver oil. And surely there must be some connection between the high vitamin content of this product and the fact that Parke, Davis & Co. have been carrying on research work in nutritional chemistry for years!

Yes, specification surely pays, all down the line.

WISCONSIN SECRETARIES' CONFERENCE

We are offering an abstract of the work of the Secretaries' Conference of one of our neighbors—Wisconsin.

It will be observed that Dr. Tom B. Throckmorton had a far seeing vision when two years ago he brought to the attention of the board of trustees the importance of these conferences.

In the April number we hope to publish the papers read and a review of the work of our own conference.

January Bulletin of the State Medical Society of Wisconsin

While the addresses of Dr. Olin West, general manager of the American Medical Association, Dr. Arthur W. Rogers, retiring president, and Dr. Rock Sleyster, trustee of the American Medical Association, presented before the Secretaries' Conference on January 7, will be printed in the Journal shortly, I furnish herewith abstracts of the morning session which had to do more particularly with program material available for meetings. Much of this material will be desired by secretaries for immediate use.

1. General Sources—George Crownhart.

Mr. Crownhart mentioned the fact that the faculty of the Universities of Chicago, Northwestern and Illinois were close to Wisconsin and members could frequently be secured for addresses in the state. Such men are particularly attractive when any considerable number of the society have graduated from one of the schools concerned.

It was suggested that the State Board of Health, Drs. Harper, Stovall, etc., were available generally without any cost.

There are eight members of the Board of Medical Examiners in the state and he suggested that any one of them could give a very excellent talk on the field of the medical practice act and enforcement.

At the American Medical Association it is some times possible to secure Dr. W. C. Woodward, secretary of the Bureau of Legal Medicine and Legislation; Dr. John M. Dodson, secretary of the Bureau of Health and Public Instruction; Dr. Morris Fishbein, editor of the Journal and Dr. A. J. Cramp, of the Bureau of Investigation. Dr. Rock Sleyster, Milwaukee Sanitarium, Wauwatosa, is one of the nine trustees of the association and has a most interesting address on the work of the American Medical Association.

Mr. Crownhart also called attention to the staff of the Wisconsin Anti-Tuberculosis Association and the desirability of watching the programs of other societies as printed in the society proceedings column of the state journal.

The request was made that each secretary place the councilor for his district on the membership roll so that notices of meetings would be received without fail, for each councilor is required by the consti-

tution to visit each society in his district during the year, and while they are desirous of doing this, it is impossible of accomplishment if they do not receive notices of meetings.

2. Dr. R. C. Buerki, of the University, discussed the work of the extension division.

During the past year the expenditure of the funds which have been appropriated to the extension division for extension work in medicine has been changed.

The State Medical Society has appointed a committee to act in an advisory capacity to the committee at the university. At a joint meeting it was decided that the expenditures of these funds should cover three main branches. First, the paying of expenses of lecturers from the university to the county and district society meetings; second, the establishment of a medical traveling library; third, certain post-graduate work in the different branches of medicine.

Men from the university are prepared to discuss a large variety of topics, a few of which are listed below. There is no charge to the county society.

Medical Ethics.

Treatment of Diabetes Mellitus with Insulin.

The Treatment of Obesity.

The Dietetic Treatment of Pernicious Anemia.

Difficulties of the Diagnosis of Pulmonary Tuberculosis.

Scarlet Fever—Treatment and Prevention.

Vaccine and Serum Therapy.

Management of Gastroduodenal Ulcers and the Common Complications.

Cholecystography and Gall-Bladder Disease.

Tumors of the Neck.

Surgical Pathology of the Liver.

Post Tonsillectomy Lung Abscess.

Carcinoma of Rectum.

Post-Operation Adhesions and Their Treatment.

The traveling medical library service is now housed at 412 North Charter street, Madison. A letter directed there with a request for literature on almost any subject will receive prompt attention.

Suggestions for the betterment of service to the physicians of the state will be appreciated.

3. Dr. J. F. Wilkinson, secretary of the Waukesha County Medical Society, discussed the subject of sources from within the county.

A. From members of county medical society.

1. Regular prearranged monthly case reports.

a. Thirty days' notice to member in advance.

b. Report limited to ten minutes.

c. Discussion limited to ten minutes.

d. Presentation of charts, x-ray films and specimens encouraged.

2. Voluntary presentation of case reports to be called for at each meeting.

a. For the sale of stimulating brief informative reports of interesting and unusual phases in general practice.

3. Symposia presented by members of the staffs of institutions located within the county.

4. Scientific papers by members who have something of value to present.

B. Joint meetings with other professional organizations.

C. Speakers from among the county officers on medico-legal problems and social medicine.

D. Speakers from industrial organizations that produce articles which have some influence on public health.

E. Program of county vital statistics and health audit.

4. Dr. Carl D. Neidhold, secretary of the Outagamie County Medical Society, made one suggestion as to financing the meetings. He pointed out that where a meeting involved some unusual expense he added twenty-five or fifty cents to the cost of the dinner to defray the other minor expenses. This was offered purely as a suggestion.

5. Mr. Fred L. Holmes, Madison, discussed the press service of the State Medical Society.

"The discovery of new inventions to lessen human toil would be of no benefit to humanity if the knowledge of their applications to the affairs of the world were never known", said Mr. Holmes. "The finding of new cures to combat disease would account for nothing if never applied. The need of exterminating the mosquito to abate yellow fever would never have saved its tens of thousands, had the discovery never been announced.

"The news service of the State Medical Society is an official announcer in bringing the latest scientific knowledge to the people of the state. As knowledge of affairs in life is the enemy of superstition, so truthful news is the torch which lights the way through the besetting forces of ignorance, misinformation and downright quackery. To bring the truth of the best which medical science has to offer in preventing disease was the single and primary reason for founding the weekly news service of the State Medical Society.

"Two years ago this service was founded and since then has been expanded until its articles are now sent to over 200 weekly and daily papers. Some papers gladly print every article; others publish those which strike the fancy of the editor, but it is fair to say that every story appears in upwards of 150 state papers. There are 150 more weekly papers that should print this news.

"These articles are not designed to promote the interest of any individual. They appear under the approval of the educational committee of the State Medical Society and each and every one goes through a long series of critical examination before it reaches the public. Those in charge of this service have one principal to guide them. They want to give the truth about disease to the public, its causes and particularly its prevention. They realize that if it is bad to lie to one it is many times more serious to spread that untruth to the world through

the public press. It is for this reason that every statement in the service is examined by the best men in the medical profession to be sure of its veracity.

"It is axiomatic that the more widespread knowledge there is in the world the better will be the understanding among people. Families who understand some of the danger signals of diseases are able to protect themselves and sometimes whole communities. Diphtheria, scarlet fever and smallpox are being driven from the state by knowledge not by blind ignorance. Those who understand the ravages which diseases can make consult their family physician when in doubt.

"Much which has been accomplished by the State Medical Society's news service in the past two years could be made three times as effective in combating disease if there could be a wider dissemination of the news which this service carries. If every health official here would encourage every weekly paper in his county to print these articles how much greater would be the accomplishments. If those weekly papers which do not carry the service now, furnished free for the asking, could be induced to print the feature what a good you would achieve.

"Over one hundred articles have now been published by this service and I am yet to have a complaint that a single article written had in it a selfish message. They were written to bring light into dark corners.

"No editor publishing them will ever be able to measure the good he has accomplished. But every editor must be encouraged in his quest to give the people the truth. Carbon monoxide was weekly taking a heavy toll until the press of the state warned the public of the cause and the danger. Since then the curve of accidents from this source has turned downward. Knowledge did it.

"So it must be with other suggestions from the news. This news service was founded to bring truthful information to the public. It has a mission to perform. Its achievements can be made far greater by your friendly suggestions. It can be made a power for great good if every man and woman here would urge their weekly papers to carry this weekly message to their readers. To attain that goal of widely spread knowledge in fighting disease is our greatest hope and noblest ambition."

George Crownhart, Sec'y.

DR. HENRY G. LANGWORTHY SPEAKS AT DUBUQUE

At a meeting of the Dubuque Traveling and Business Men's Association held at the Chamber of Commerce Thursday evening, December 29, Henry G. Langworthy, republican candidate for congress in the third district at the next June primary, said in part: "Conditions are changing in the Republican Party in Iowa today and that in line with the needs of our agricultural interests, we must recog-

nize this fact. While Iowa and the third district has always been predominantly republican, the big question and the vital issue right now is what kind of republicans will they be? Will they be republicans whose political principles are same as the republicans of New England? If so, they will make poor representatives for us because our interests are very different from those of New England or New York or Pennsylvania. There was a day when republican principles were so general that it was safe for Iowa to support them, but that day has passed. If we send to Congress republicans who will vote with the republicans of Pennsylvania, New York and Massachusetts, we will have representatives who are opposing our own best interests. The time has come for new and more progressive leadership in many places in the Republican Party in Iowa. In particular, I believe that this third district should have a progressive leadership in congress. Our interests are different from the interests of the Atlantic Seaboard. This is not a state of cities but a state of farms. Our political ideals should be the ideals of a republican Lincoln and a republican Roosevelt. We are distinctly within our rights when we demand that the Republican Party in Iowa return to the fundamental principles of our fathers and ourselves. Our agricultural interests are not the interests of the big eastern manufacturers and the New York international bankers and you may be sure that most of them will oppose us in our efforts to lead the Republican Party of Iowa back to first principles. We cannot expect the old guard of the eastern Republican Party to be willing or able to adequately represent the farmer and laborers of the West.

I will support and work for four great principles: First, adequate farm relief; second, arbitration of international and industrial disputes; third, publicity as opposed to secrecy in government; fourth, voice my protest against seat purchasing of political office. I shall also insist in the third district at least that in the selection of postmasters that the rules of the civil service be more strictly enforced. I do not believe that this kind of a job should be merely a political plum."

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following open competitive examinations:

Assistant Medical Officer
Associate Medical Officer
Medical Officer
Senior Medical Officer

Applications for these positions will be rated as received by the Civil Service Commission at Washington, D. C., until June 29, 1928.

The examinations are to fill vacancies in various branches of the service throughout the United States.

There are vacancies in practically all branches of medicine and surgery, but there is especial need for medical officers qualified in tuberculosis or neuropsychiatry.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience.

Full information may be obtained from the United States Civil Service Commission at Washington, D. C., or the secretary of the United States civil service board of examiners at the post-office or custom-house in any city.

SOCIETY PROCEEDINGS

Audubon County Medical Society

The Audubon County Medical Society met with Drs. Jacobsen and Payne, December 15, 1927, this being the fourth meeting during the year. The president not being present the meeting was called to order by the vice-president, Dr. Payne. All members present except the president, Dr. Halloran.

The following officers were elected: President, Dr. R. H. Payne, Exira; vice-president, Dr. Peter Soe, Kimballton; secretary and treasurer, Dr. J. M. Fulton, Audubon; delegate to state convention, Dr. R. F. Childs, Audubon; alternate, Dr. L. E. Jensen, Audubon.

Motion made by Dr. Jensen that a charge for complete immunization for diphtheria, the three threatments, \$1, the school board to furnish the toxin-antitoxin. For adults not in school \$4.50, the doctor to furnish the toxin-antitoxin. Motion carried.

J. M. Fulton, Sec'y.

Bremer County Medical Society

The Bremer County Medical Society held a meeting on the fifteenth of December in the auditorium in the nurses' home of the St. Joseph's Mercy Hospital, at Waverly, Iowa. After a sumptuous banquet served by the Sisters the meeting was called to order by the president, Dr. Rohlf. Minutes of the last meeting were read and approved. At the banquet there were songs sung by Mrs. Holloway and Mrs. Consigny accompanied by Mrs. Bacon at the piano and Rev. Bacon on the violin. Toasts were made by Dr. McManus, Rev. Bacon and Rev. Rausch.

Members present: Drs. Rohlf, Gernsey, Kern, Jay, Osincup, Mahin, Rathe, Whitmire, Bries, Epeneter and Graening. Visitors present: Drs. Ensley, McDannell, Whitmire, Jr., Goodale and McManus.

A card of thanks from Mrs. Dunkelberg for our floral offering was read.

Election of officers was then held and the following officers elected for 1928: Dr. W. L. Whitmire, Sumner, president; Dr. C. H. Graening, Waverly, vice-president; Dr. M. N. Gernsey, re-elected, secretary and treasurer; Dr. L. C. Kern, delegate; Dr. F. R. Sparks, alternate.

Dr. Kern then stated that the subject of a representative at the legislature was to come up before the state meeting in May. It was moved by Dr. Osincup and seconded by Dr. Bries that the president appoint a committee to draw up resolutions upholding the trustees of the State Society in their work. A committee was then appointed consisting of Dr. Kern and Graening. It was also moved and seconded that a committee of necrology to draw up resolutions of condolence and sympathy regarding the death of our professional brother, Dr. B. C. Dunkelberg of Sumner, be appointed. Drs. Jay, Graening and Osincup were appointed. Also that a copy of these resolutions be sent to the family, and a copy incorporated in the minutes of this meeting.

A vote of thanks was given to the Sisters for their excellent entertainment.

Owing to the lateness of the hour and inclemency of the weather the remainder of the program was dispensed with, and the meeting adjourned.

M. N. Gernsey, Sec'y.

Calhoun County Medical Society

The November meeting of the Calhoun County Medical Society was open to the public to hear Dr. A. A. Johnson of Council Bluffs who spoke on the diseases of the thyroid. By means of case reports and actual specimens presented, Dr. Johnson gave a presentation that was extremely interesting even to the lay members present. Among these were a state representative, a banker, a school superintendent, a nurse, all of whom expressed their appreciation of the privilege of hearing the discussion.

Dr. Donald Macrae, Jr., who had arranged to come and talk upon the Inter Relation of Surgery and General Practice was prevented from coming by illness.

The inviting of the laity was generally approved for future meetings.

P. W. Van Meter, Sec'y.

Des Moines County Medical Society

The Des Moines County Medical Society, at a meeting held at the Union Hotel, Burlington, elected the following officers: Dr. Horace Peoples, president; Dr. A. B. George, vice-president; Dr. George Dixon, secretary-treasurer; Dr. J. B. Hanna, delegate to state medical meeting at Cedar Rapids; Dr. A. Moerke, alternate delegate; Drs. Mathias of Mediapolis, Dr. E. F. Huston and Dr. P. H. Schaefer, members of the board of censors.

Councilor George B. Crow attended the meeting in an official capacity.

Dubuque County Medical Society

The Dubuque County Medical Society elected officers at the session held December 13, 1927. Officers elected: President, Dr. R. R. Harris; vice-president, Dr. G. E. Haisch; second vice-president, Dr. F. S. Leonard; secretary, Dr. D. C. Conzett; treasurer, Dr. W. J. Connell; delegate State Society,

Dr. J. H. Schup; alternate delegate, Dr. W. A. Henneger; board of censors, Drs. H. A. Stribley, F. W. M. Meyers and F. S. Leonard.

This session of the society was devoted to the memory of Dr. I. S. Bigelow, the senior member, who died December 11, 1927. Dr. Bigelow enjoyed the respect of his professional associates and there must have come a feeling that Dr. Bigelow was the last of his generation and time.

Hardin County Medical Society

The first of the bi-monthly meetings of the Hardin County Medical Society for 1928 was held at Iowa Falls on Thursday evening, January 12. Fourteen members of the society were present. Following dinner at the Woods Hotel, the society was addressed by Dr. J. F. Gerken of University of Iowa Extension Department, who has been holding Shepard-Towner clinics in different parts of the county. The subject was Infant Feeding and was ably presented, both from a scientific and practical angle and was enthusiastically received.

The next meeting will be held at Hubbard in March.

W. E. Marsh, Sec'y.

Linn County Medical Society

Linn County Medical Society met Thursday, January 19, 1928, at the Roosevelt Hotel, Cedar Rapids.

Program: Focal Infections Followed by Intracranial Complications as Met by the General Practitioner, by Cassius C. Rogers, surgeon-in-chief Garfield Park Hospital, Chicago.

Hosts: Drs. Bailey, Stansbury, Knox, Vonlackum, Walker and Foster.

Polk County Medical Society

The Polk County Medical Society met for its annual meeting and banquet at the Wakonda Country Club on the evening of December 19, 1927.

A very fine dinner was served at 7 p. m., after which a very enjoyable program was presented by Dr. F. B. Langdon, Dr. H. C. Bone and Troupe, also by Mr. John Brodie. Following this the business meeting was held, presided over by the vice-president, Dr. A. D. McKinley.

The minutes of the last meeting were read and approved.

The application of Dr. James T. McBride for membership was presented to the society and referred to the board of censors.

Current bills together with those for the present meeting were presented and allowed.

Election of officers: On first informal ballot for president-elect, there were 101 votes cast, of which Dr. C. E. Ruth received 62, Dr. Fred Moore 25, Dr. S. E. Lincoln 10, the balance were scattered.

Dr. Thos. A. Burcham moved that the informal ballot be made formal and that Dr. Ruth be declared elected president-elect. Duly seconded and unanimously carried. Dr. Ruth spoke a few words at this time.

Dr. H. C. Willett moved that the rules be suspended and further elections be made by acclamation. He presented the name of Dr. A. E. Merkel for vice-president. Duly seconded and unanimously carried.

Dr. M. L. Turner moved that Dr. L. K. Meredith be re-elected secretary-treasurer. Duly seconded and carried.

The remainder of the evening was then given over to cards and dancing.

There were 125 members present, 110 guests. Total number present 235.

L. K. Meredith, Sec'y.

Ringgold County Medical Society

The Ringgold County Medical Society held a meeting on October 28 in the assembly room of the new \$150,000 court house at Mount Ayr. This meeting was in the form of a double clinic, one being a heart clinic conducted by Dr. M. M. Myers of Des Moines and the other a lung clinic conducted by Dr. J. H. Peck of Des Moines. The doctors were assisted by Miss Lucy McMichael, state director of clinics for the Iowa Tuberculosis Association. Miss McMichael was here three days preparing for the clinics; she was assisted by Miss Frank, our community nurse. There were twenty-two patients examined. These clinics were a marked success and gave much satisfaction to the twenty doctors present. Our society has adopted the plan of inviting the laity to our meetings, and it seems to be giving satisfaction to the doctors and the laity also.

It is considered a good plan to expose fraudulent healers and quacks.

Samuel Bailey.

Tama County Medical Society

The Tama County Medical Society held its last meeting for the year 1927 in Tama, Iowa, December 15.

Dr. P. A. Bendixen of Davenport gave a very interesting and instructive talk on Colles' Fractures, using numerous lantern slides to illustrate methods of reduction and treatment.

Election of officers for 1928 resulted in the following: For president, Dr. A. A. Crabbe, Traer; vice-president, Dr. A. J. Farnham, Traer; secretary-treasurer, Dr. C. W. Maplethorpe, Toledo; censor, to serve three years, Dr. P. L. Parsons, Traer; delegate to state meeting, Dr. M. L. Allen, Tama; alternate, Dr. A. A. Crabbe.

A. A. Crabbe, Chrm. Pub. Com.

Woodbury County Medical Society

The January meeting of the Woodbury County Medical Society was held on Tuesday evening, January 17, 1928, at the Jackson Hotel, Sioux City. Dr. G. G. Cottam, Sioux Falls, South Dakota, was the guest. His subject was The Medical Profession and the Law.

Dinner was served at 6:30 p. m.

Roscoe Jepson, Sec'y.

Worth County Medical Society

At a meeting of the Worth County Medical Society on December 27, 1927, Drs. S. E. Hirbst of Northwood, O. V. Wille of Grafton and A. W. Harned of Fertile, were elected to membership. This completes a membership of all the doctors in the county who are actively engaged in the practice of medicine.

Arrangements were also made for monthly meetings of the society. The question came up regarding diphtheria immunization, and the society pledged its active support.

C. A. Hurd, Sec'y.

American Laryngological, Rhinological and Otological Society, Inc.

The annual meeting of the Middle Section of the American Laryngological, Rhinological and Otological Society, Inc., was held at the Hotel Blackhawk, Davenport, Iowa, Monday, February 6, 1928.

Program

1. Anatomy of the Larynx—Dr. Henry J. Prentiss, University of Iowa, (by invitation). Discussion opened by Dr. Harry L. Pollock, Chicago, Illinois.

2. Physiology of the Larynx—Dr. William V. Mullin, Cleveland, Ohio. Discussion opened by Dr. Robert Sonnenschein, Chicago, Illinois.

3. Blastomycosis of the Larynx—Dr. Gordon New, Rochester, Minnesota. Discussion opened by Dr. Horace R. Lyons, Chicago, Illinois.

4. Some Environmental Affections—Dr. John F. Barnhill, Indianapolis, Indiana. Discussion opened by Dr. Millard F. Arbuckle, St. Louis, Missouri.

5. Experience with a New Mastoid Flap and Drainage, (Ellis)—Dr. Benton N. Colver, Battle Creek, Michigan. Discussion opened by Dr. C. Ward Ellis, Lansing, Michigan (by invitation).

6. Some Observations on the Treatment of Chronic Discharging Ears—Dr. George E. Shambaugh, Chicago, Illinois. Discussion opened by Dr. Alvin J. Lorie, Kansas City, Missouri.

7. Further Clinical Observations of Sinus Physiology—Dr. Arthur W. Proetz, St. Louis, Missouri. Discussion opened by Dr. John J. Shea, Memphis, Tennessee.

8. Sphenoid Sinus Infection and Its Care—Dr. Roy A. Barlow, Madison, Wisconsin. Discussion opened by Dr. Edwin Cobb, Marshalltown, Iowa.

9. Fractures of the Facial Bones with Involvement of the Nasal Accessory Sinuses—Dr. J. B. Naftzger, Sioux City, Iowa. Discussion opened by Dr. Edward King, Cincinnati, Ohio.

Officers of the society—President, John F. Barnhill, M.D., Penway building, Indianapolis, Indiana; vice-presidents, Perry G. Goldsmith, M.D., chairman, Eastern Section, 84 Carlton St., Toronto, Canada; J. W. Jervy, M.D., chairman, Southern Section, Greenville, South Carolina; Gordon F. Harkness, M.D., chairman, Middle Section, Putnam building, Davenport, Iowa; Ernest M. Seydell, M.D., chairman, Mid-Western Section, First National Bank

building, Wichita, Kansas; Ralph A. Fenton, M.D., chairman, Western Section, Medical Arts building, Portland, Oregon; Treasurer, Ewing W. Day, M.D., 121 University Place, Pittsburgh, Pennsylvania; editor, George L. Richards, M.D., 124 Franklin street, Fall River, Massachusetts; secretary, Robert L. Loughran, M.D., 33 East 63rd street, New York, New York.

Council—Class A—William H. Haskin, M.D., New York, New York; Harold I. Lillie, M.D., Rochester, Minnesota; Henry Hall Forbes, M.D., New York, New York. Class B—John M. Ingersoll, M.D., Cleveland, Ohio; Joseph B. Greene, M.D., Asheville, North Carolina; Gordon Berry, M.D., Worcester, Massachusetts. Class C—Burt R. Shurley, M.D., Detroit, Michigan; Edward C. Sewall, M.D., San Francisco, California; Frank L. Dennis, M.D., Colorado Springs, Colorado.

SIoux VALLEY EYE AND EAR ACADEMY

The Sioux Valley Eye and Ear Academy will meet Wednesday, February 15, 1928, at the Hotel Fontenelle, Omaha, Nebraska, with the following program:

Officers: Dr. R. A. Kelley, president, Mitchell, South Dakota; Dr. S. R. Gifford, vice-president, Omaha, Nebraska; Dr. F. R. Roost, secretary and treasurer, Sioux City, Iowa.

Morning session, 10:30 a. m. to 12:30 a. m.—Clinical discussions and demonstrations of cases by local members.

Luncheon—Hotel Fontenelle, 1:00 p. m. to 2:00 p. m.—Given by members of the Omaha and Council Bluffs Ophthalmological and Otolaryngological Society.

Afternoon session, 2:00 p. m.—Discussion of Treatment of Nasal Sinusitis. Medical—Dr. Waldron Cassidy, Omaha, Nebraska. Surgical—Dr. Ray Knode, Omaha, Nebraska.

The Lynch Type of Operation in Sinus Disease—Dr. H. I. Lillie, Mayo Clinic.

The Surgical Correction of Deformity from Third Nerve Paralysis—Dr. Meyer Wiener, St. Louis, Missouri.

Malignancy of the Mouth and Face (with lantern slides)—Dr. Thomas E. Carmody, Denver, Colorado.

Demonstration, Technique of Regional Anesthesia—Dr. C. H. O'Brien, Iowa City, Iowa.

Short business session.

Banquet—Hotel Fontenelle, 7:00 p. m.

CENTRAL PSYCHIATRIC HOSPITAL ASSOCIATION

During the meeting of the American Psychiatric Association this year in Cincinnati there was formed the Central Psychiatric Hospital Association, which

is composed of private sanitariums for the care and treatment of nervous and mental diseases. The organization was the culmination of several years' thought and a feeling that the necessity existed for such an association. At Minneapolis in October permanent officers were elected as follows: President, Dr. Thomas Ratliff, Cincinnati, Ohio; vice-president, Dr. Russell Doolittle, Des Moines, Iowa; secretary-treasurer, Dr. D. A. Johnston, Cincinnati, Ohio; councilors, Dr. Frank Norbury, Jacksonville, Illinois, and Dr. Karl Menninger, Topeka, Kansas.

The purposes of this association are to foster co-operation among private hospitals for nervous and mental diseases for their mutual benefit and to promote and maintain higher standards, increase efficiency of organization and the advancement of scientific care and treatment for those in their care.

A committee on standards is meeting with the council in Chicago, December 14, 1927, to formulate standards for hospitals of this type.

HOSPITAL NOTES

The new University Hospital, Iowa City, is expected to be opened in time for the medical classes of 1928-1929.

The new McVay Hospital at Lake City was formally opened December 3rd.

Considerable difficulty is experienced in securing funds to meet the deficit of \$238,000, due to the large expense in caring for state patients sent in by counties under the present law.

The Virginia Gay Memorial Hospital of Vinton, which was closed about two years ago for lack of funds, has recently been able to re-open. Vinton Hospital has been able to realize the so often experienced difficulty of expending all their resources in contracting buildings without seriously taking into account the expenses of operation.

PERSONAL MENTION

Dr. Paul Ralston, a graduate of Creighton Medical School, has located in Harvey. Dr. Ralston served as intern at Mercy Hospital, Des Moines, and had special work in Chicago.

Dr. Ralph Bowen has located in Waterloo, where he will give special attention to diseases of children. Dr. Bowen was associated with the Children's Hospital at Iowa City. He is a graduate from the College of Medicine, Iowa University, class of 1924.

Dr. Herman N. Bunderson, the well known commissioner of Health of Chicago, was dismissed by Mayor Thompson. Immediately after his dismissal, the Chicago Daily News offered Dr. Bunderson a position on its staff as health editor.

MARRIAGES

Dr. Don H. O'Donoghue, S. U. I., 1926 and Miss Ragnhild Christensen were married at Storm Lake, Iowa, January 4. They will reside in Oklahoma City where Dr. O'Donoghue is employed in the University Orthopedic Hospital.

BOOK REVIEWS

THE 1926 COLLECTED PAPERS OF THE MAYO CLINIC AND MAYO FOUNDATION

Rochester, Minnesota, Octavo of 1329 Pages, with 380 Illustrations. W. B. Saunders Company, 1927. Cloth, \$13, Net. The Editorial Corps Consists of Mrs. M. H. Mellish, Chief; H. Burton Logie, M.D. and Charlotte Eigenman, B.A., to Whom Much Credit Should Be Given for the High Literary Merit of the Publication.

The first to attract our attention is the fine cut of Dr. Russell Carman and the feeling memorial to the man who had contributed so much to the greatness of the Mayo Clinic and so much to the development of roentgenology.

It is difficult to prepare an adequate review of a book which contains so many valuable contributions of an authoritative character, as, for instance, the first two papers by Dr. Porter P. Vinson and his associates on Cicatricial Stricture of the Esophagus. Altogether there are some fifty-five contributions on Diseases of the Alimentary Tract, including 417 pages, and in addition 44 titles and references. Nothing appears to be omitted that relates to the Alimentary Tract.

In the division on Urogenital Organs a series of experimental observations appear, followed by a paper on the Surgical Treatment of Chronic Pyelonephritis by Dr. William F. Braasch. Dr. Braasch states that, "Although chronic pyelonephritis is not usually regarded as being amenable to surgical treatment, it may be attended by surgical complications" (noted in the paper). He further states that in a period of six years 2040 patients with chronic pyelonephritis were observed at the Mayo Clinic, sixty-eight were operated upon for so-called surgical complications. These observations are of great practical value.

Dr. E. Starr Judd, under the title "Hemorrhagic Cysts of the Kidney", contributes to the same or allied subjects. Together with other members of the staff, Dr. C. H. Mayo supplements these observations by a study on Developmental Anomalies, Especially of the Genito-Urinary Tract. Dr. Mayo and Dr. William A. Hendricks discuss Exstrophy of the Bladder, a condition which Dr. C. H. Mayo has contributed so much to relieve through a period of years.

Dr. Verne C. Hunt, who has arrived at a high degree of skill in prostatic operations, presents a

paper on certain features of obstruction. The subject of Ductless Glands and Goitre receive consideration in thirteen contributions; what new things have been found out I do not know, so much has been said and written. We cannot omit reference to "The Rehabilitation of the Surgical Patient Through Biochemical Methods, with Special Reference to Diabetes", by Dr. W. J. Mayo, whose philosophical views on certain aspects of medicine are extremely interesting. Some interesting observations are made on the subject of surgery in the presence of diabetes by Drs. Wilder and Adams.

The division on Blood and Circulatory Organs includes seventeen papers, introduced by Dr. W. J. Mayo, Dyscrasias of the Blood. Dr. Frederick A. Willus contributes liberally on heart cases.

Under the head of Fractures, Dr. Henderson contributes three papers; The Open Treatment of Fractures, Fractures of the Hip, and Chronic Osteitis of the Semilunar Bones. In the division Head, Trunk and Extremities are twenty-two pages of especial interest to general surgeons.

We regret lack of space to present many other interesting subjects for study, but what we have referred to will give a fair idea of the extent and value of the contributions.

THE MEDICAL DEPARTMENT IN THE UNITED STATES ARMY IN THE WORLD WAR

Volume II, Surgery. Part One, General Surgery, Orthopedic Surgery, Neurosurgery. Prepared Under the Direction of Maj. Gen. M. W. Ireland. Government Printing Office, Washington, D. C., 1927.

Much of the material of some of the chapters of the general surgery section was obtained from published sources and used as a basis for the chapters as they now stand. An introductory chapter on the history and development of war surgery, particularly including the surgery of the World War and other wars in which the United States was involved, is interesting reading.

Following comes section one, General Surgery, Helmets and Body Armor. The Medical Viewpoint, Firearms and Projectiles; Their Bearing on Wound Production. Artillery, Artillery Projectiles, Shrapnel, High Explosive Shells, Hand Grenades, Rifle Grenades, Airplane Bombs, Small Arms, Weapons and Missiles, Anti-Tank Rifles, Autoloading Automatic Rifle, Machine Guns, Pistols, Rifle Missiles, Special Rifle Bullets, etc.

General Character of Wounds from Various Causative Agents. Wounds from Explosive Missiles. Wounds produced by Small Arms Missiles. Irregular Movement of Bullets in Tissues, etc., with many illustrations.

Then comes chapter on Statistics. Surgery at the Front—Battle Field; The Company Aid Station; Battalion Aid Station; Regimental Aid Station; The

Field Hospital; Evacuation Hospital, with numerous illustrations.

Wound Shock from Laceration of Tissue; Localization and Extraction of Foreign Bodies under X-ray Control; Wounds of Joints; Wounds of the Genito-Urinary Tract. We have enumerated the headings of the several sections under General Surgery.

The second section of Surgery included in this volume is Orthopedic Surgery, a most important division. It appears that at the 1916 session of the American Orthopedic Association, in view of the possibility of our entering the war, a committee was appointed for the purpose of standardizing this branch of surgery. The organization of leading post-graduate university courses was arranged for this purpose. The work of orthopedic surgeons is set forth in considerable detail and reflects great credit on the surgeon general's office in establishing this division, considering the condition of the medical department of the army before the war.

Section three: Neurosurgery. The organization of this division also reflects great credit on the surgeon general and his advisors, when we consider what was accomplished in the surgical conduct of the war, with the material at hand at the beginning of the war, we are deeply impressed with the vast amount of work done in the surgeon general's office.

THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING DENTAL EDUCATION IN THE UNITED STATES AND CANADA

By William J. Gies, with a Preface by Dr.
Henry S. Pritchett, President of the Founda-
tion.

It will be remembered that in 1910 the Carnegie Foundation for the Study of Medical Education published its first report and since then have published various annual reports. These studies and reports, together with the activities of the Council on Medical Education of the American Medical Association, have brought about important changes in medical education in the United States and Canada. The effect on medical colleges is well known. The report before us is on Dentistry.

Dentistry is now an independent profession and not a branch of medicine. Dentistry declared its independence in 1839-1840 when the national society was formed, a journal and school of dentistry established. Now as medical education has reached a high degree of development, the attention of the Carnegie Foundation turns more specifically to dentistry, not as an accredited specialty of the practice of medicine, but as an independent profession.

The report first considers the primary educational needs of dentistry. Chapter one takes up the General History of the Practice of Dentistry. Chapter two: General History of Dental Education in the United States. Chapter three: Statutory Defini-

tion and Regulation of the Practice of Dentistry. Chapter four: Types, Number and Distribution of Dental Practitioners. Chapter five: Deficiency of Dental Service for the Negro Group. Chapter six: Regulation of Dental Schools by State Laws and by Professional Organizations. Chapter seven: Curriculum and Teaching of Dentistry. Chapter eight: Equipment and Financial Support of Dental Schools. Chapter nine: Research. Chapter ten: Proposed General Re-organization. Chapter eleven: Dental Education in Canada. Chapter twelve: General Views and Conclusions.

The above is an outline of the report on Dental Education of the Carnegie Foundation and should engage the attention of the dental profession.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

Third Series, Volume 48, 1927.

The literary contents begins with A Memoir of Richard H. Hart, M.D., by George W. Norris, M.D. The writer enjoyed for many years a close acquaintance with Dr. Hart and on several occasions rather extensive trips with him on the Mayo boat. Dr. Norris writes an intimate account of Dr. Hart's early struggles, his success, and his valuable and patriotic work. It has fallen to but few men to render equally useful service to the public and to his friends. He was a most delightful companion. He died of pneumonia at the age of seventy years, at Memphis, Tennessee.

Dr. Thompson W. Wescott writes a Memorial to Dr. Louis Starr, for fifty years a Fellow of the College of Physicians.

Memoir of George Arthur Piersol, M.D., a distinguished anatomist and teacher, by George Fetterolf, M.D.

Memoir of I. Minis Hayes, M.D., by William J. Taylor, M.D.

The volume contains the Annual Address of the President for the college year of 1925, by Hobart Armory Hare, M.D.

The remainder of the volume is devoted to papers read by Fellows of the College and are of high merit.

THE SURGICAL CLINICS OF NORTH AMERICA

Volume VII, Number 3, 330 Pages with 81
Illustrations. W. B. Saunders Co., 1927.
Paper \$12, Cloth \$16 Per Clinic Year.

This Chicago number is introduced by Arthur Dean Bevan, M.D. First, Melanotic Tumor of the Brain, and two cases of Head Injury.

Dr. J. P. Greenhill presents a discussion on Operations During Pregnancy, illustrated by several clinic cases, worthy of careful consideration.

Drs. Edmund Andrews and R. H. Jaffe discuss an interesting subject under the head of Inflammatory Disease of the Duodenum Simulating Carcinoma.

(Continued on Advertising page xviii)

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BOOK REVIEWS

(Continued from page 76)

Dr. Edward Lyman Cornell, at the Chicago Lying-in Hospital, presents a series of cases illustrating the Management of Heart Cases in Pregnancy and Labor, Post-Operative Complications in Urology, by Dr. Daniel N. Eisendrath. Traumatic Dislocation of the Kidney by Dr. Vincent J. O'Connor. This is a subject that has excited the interest of traumatic surgeons for many years on account of their claims relation.

LISTER'S DISTRIBUTORS

In this issue appears a two page colored insert of Lister Bros., Inc., of New York City. For the convenience of readers, a list of their distributors in the field covered by this Journal is herewith given:

Algona, Iowa—Ellis-Runchey & Co.
 Alta, Iowa—Cameron & Co.
 Atlantic, Iowa—The Cooperative Store.
 Booneville, Iowa—Booneville Mercantile Co.
 Burlington, Iowa—Henry Drug Company.
 Centerville, Iowa—Weller-Morgan Co.
 Charles City, Iowa—John G. Legel, Druggist.
 Cherokee, Iowa—McWilliams Drug Store.
 Clarion, Iowa—Linebarger & Tabor, Druggist.
 Clinton, Iowa—Hayes & Murphy, Grocers.
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 Marshalltown, Iowa—A. T. Elder, Druggist; Mayer's Best Drugs; The Quality Drug Shop.
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 Storm Lake, Iowa—H. M. Stuhr, Druggist.
 Stout, Iowa—Messrs. DeBeer & Ellinger, Merchants.

Sully, Iowa—Geenan's Bakery.
 Tipton, Iowa—Sproat & Kuhn, Grocers.
 Washington, Iowa—Sherman Brothers.
 Waterloo, Iowa—Robert Drug Co.; C. J. Miller, Druggist; Waterloo Drug Co.
 Webster City, Iowa—Crandall's Model Grocery.

NEW AND NON-OFFICIAL REMEDIES

Chicago, Illinois, November 26, 1927.

In addition to the articles enumerated in our letter of October 29, the following have been accepted:

Abbott Laboratories:

Staphylococcus Mixed Bacterin.

Typhoid Prophylactic, 5 c.c. vials.

Typhoid Prophylactic, 20 c.c. vials.

Lederle Antitoxin Laboratories:

Anaerobic Antitoxin (Polyvalent)—Lederle.

Merck & Co., Inc.:

Erythrol Tetranitrate Tablets—Merck, $\frac{1}{4}$ grain.

H. K. Mulford Co.:

Ampuls Dextrose (d-Glucose) 10 Gm., 20 c.c.

Ampuls Dextrose (d-Glucose) 25 Gm., 50 c.c.

Parke, Davis & Co.:

Ephedrine Sulphate—P. D. & Co.:

Prophylacto Mfg. Co.:

Ephedrine Hydrochloride—Pemco.

E. R. Squibb & Sons:

Insulin Squibb, 100 units, 10 c.c.

Tailby-Nason Co.:

Nason's Palatable Cod Liver Oil.

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The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, MARCH, 1928

No. 3

THE DIAGNOSIS AND TREATMENT OF STERILITY*

NORMAN F. MILLER, M.D., Iowa City
Associate Professor of Obstetrics and Gynecology,
University of Iowa

Medical men have always had to face the problem of sterility. Probably our forbears were consulted as often for this complaint as we are today. Interest in sterility has fluctuated with its development, rising and falling coincident with new ideas and discoveries. The eminence of sterility today, amongst medical problems, is only partly accounted for on this basis. The tendency of childless individuals to demand the utmost in the way of diagnosis and treatment has contributed just as greatly to this rise. They no longer hide their desire and bear their sorrows in silence. Still another factor in the present development of the subject is the division of responsibility. Women alone are no longer considered entirely responsible and today the responsibility of the husband in non-fertile marriages is variously estimated at from 10 to 30 per cent. This knowledge has not only stimulated greater interest but has opened up new fields for study.

The purpose of this paper is to consider the diagnosis and treatment of sterility from a general standpoint only.

A complete history, with questioning of both husband and wife, is essential. This is not always possible, since the old idea of women's responsibility is still in existence and accepted by both sexes, and for that reason it is often difficult to induce the husband to come for investigation. When the desire for children is genuine, however, an explanation will generally correct this difficulty.

Special blanks are used for recording the history and examination. This tends to standardize the method of study and facilitates collecting data. (Figure I.)

The past history is of value, particularly the

relationship between acute infectious diseases and pelvic complications. Thus the history of any acute infection in women with pelvic symptoms and of epididymitis or orchitis in the male, is often a clue as to where the responsibility may lie. This connection between general disease and sterility has not been sufficiently stressed in the past. Carefully taken histories will often reveal pelvic involvement, which may have been sufficient to seal off the tubes. Subsequent examination generally proves this to be correct.

A history of injuries, particularly of the male genital organs, may play an important role in sterility. A history of abdominal or pelvic operations should always be investigated for possible relation to the childless union.

Investigation of the menstrual cycle is necessary. Endocrine dyscrasia is occasionally indicated by abnormal or scanty flow. Delayed onset of menstruation may be associated with the small anteflexed type of uterus so frequently found in women complaining of sterility.

A history of leucorrhea sufficient to be considered abnormal is suggestive evidence of genital tract infection. An old chronic cervicitis may underlie this symptom.

In the past the marital history has been entirely omitted or inadequate. Through a sense of false modesty, or undervaluation, we often fail to investigate this important phase of the patient's life and its relationship to sterility. Previous marriage of husband or wife, or both, associated with offspring, will aid in locating the cause. Dyspareunia and over-indulgence are noted only by direct questioning. Most women will fail to mention drainage of the semen following coitus unless the question is specifically asked. People coming for sterility are generally prepared for this intimate questioning and examination. Our tendency to rely on strictly diagnostic procedures has diminished our initiative in respect to history taking and as result we may overlook simple facts responsible for the trouble.

A knowledge of the individual's general health and living habits is basic in this study. Little

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

need be said regarding general examination, other than to emphasize the necessity for thoroughness. There is often a definite relationship between general constitutional disease, as syphilis, heart disease, nephritis and sterility. Should general disease be found it must be considered not only as a potential cause of sterility, but also as a possible contraindication to pregnancy. This latter is not common but may occur and it would be the height of folly to aid conception in the face of definite contraindications. Our principal interest naturally lies in the study of the genital tract. The pelvic support is important in relative sterility, (where the woman has had one child),

STATE UNIVERSITY OF IOWA
DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

Name _____
Age _____ Date _____ No. _____
History (Gen.) _____
Menstrual _____
Leucorrheal _____
Marital _____
Puerperal _____
Examination (general) _____
PELVIC EXAMINATION: Outlet _____
_____ pel. floor _____
Clitoris _____
Urethra _____
Vagina _____
_____ length _____
Seminal pool _____ secretions _____
_____ reaction _____
Cervix _____ position _____
_____ condition _____
Mucous plug _____
Uterus size _____ position _____
_____ mobility _____
Ovaries _____
Tubes _____
Smears _____
Wassermann _____
HUSBAND: age _____ occupation _____
_____ previously married _____
Children _____ general health _____
_____ Wassermann _____
Spermatozoa (age) _____ how obtained _____
Microscopic findings _____
PATENCY TESTS OR TRANS-UTERINE TUBAL INSUFFLATION
Date (1st test) _____ L. N. P. _____
_____ method _____ gas _____
Pressure _____ amount _____
Result _____
Auscultation _____
Symptoms or complaints _____
Remarks _____
LIPOIDAL INJECTIONS: date _____ x-rays _____
_____ 24 h. x-ray _____
Findings: _____
Artificial insemination _____ date _____
_____ method _____
Follow up report: _____

FIGURE I

Blank used for recording the history and examination
(Spacing of Chart has been contracted for publication purposes.)

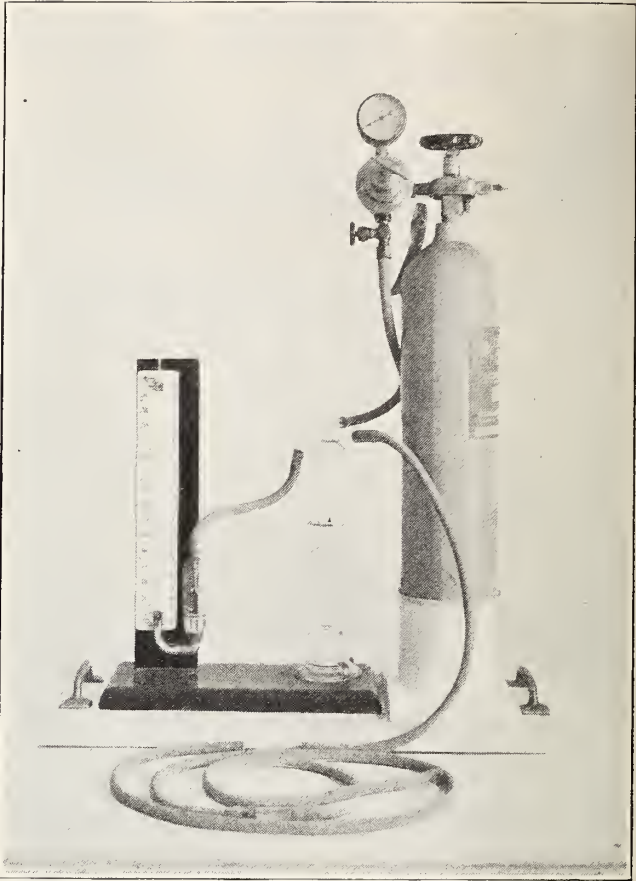


FIGURE II
Apparatus for injecting CO₂

and when a history of drainage of the seminal pool is obtained.

The condition of the cervix must be determined not only on bimanual but also by speculum examination. Evidence of infection is often apparent on the latter but may be entirely missed by simple palpation. Smears should be taken from both the urethra and cervix and the condition of the cervical canal investigated. A thick tenacious mucus plug and the discharge associated with chronic cervicitis are often factors in sterility. The reaction of the vaginal secretions should be noted. This is best done by determining the hydrogen ion concentration, the use of litmus paper being a poor substitute. I have, however, never seen a patient with a vaginal secretion sufficiently acid to be considered, in my opinion, the primary cause for sterility.

The position of the uterus and cervix are factors in sterility, though probably not important ones. When the uterus is retroverted and the cervix points anteriorly instead of back into the posterior vaginal fornix, or seminal pool, the ease with which conception may occur is probably diminished. The small underdeveloped, acutely anteфлекed uterus is likewise a factor in this respect.

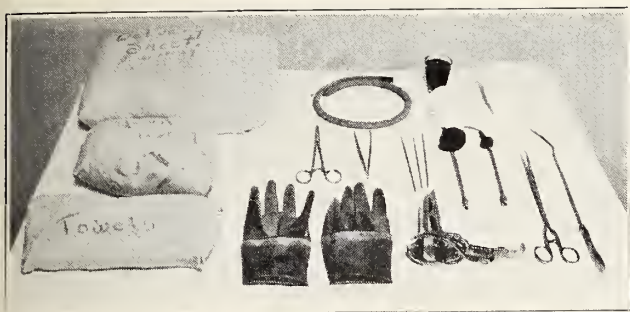


FIGURE III
Instruments used in CO₂ injection

Disease of the appendages can generally be determined providing the pathology is extensive. Although bimanual examination will give much information it is not in itself sufficient. The fine adhesions, particularly at the fimbriated ends of the tubes, sufficient to seal off the openings and prevent entrance of the ova, cannot be determined by this method. For this purpose the injection of carbon dioxide gas is most helpful. This procedure, the so-called trans-uterine tubal insufflation or Rubin test, is easily performed and gives a vast amount of otherwise unattainable information. (Figures II and III.) The test is not without its hazards, however, and should not be undertaken without a proper knowledge of its indications pro and con. When the tubes are found to be non-patent this procedure is followed by the injection of iodized oil (lipiodol) and x-ray examination. The diagnostic value of this procedure has not as yet been fully determined. It would appear that the visualization of the uterus and appendages made possible by this method will be of the greatest value in determining the advisability of plastic operation on the tubes. (Figures IV, V, VI and



FIGURE IV
Lipiodol injection of tubes and uterus

VII.) Both the last named procedures are of the utmost value in locating the cause of sterility and today no case can be considered completely or thoroughly studied without the use of these valuable aids.

Blood for Wassermann test should be drawn from both husband and wife.

The general examination of the husband is postponed until the semen has been studied. Our procedure is to obtain a specimen from the cervix and one from the seminal pool one hour after coitus. This is best done before any special tests have been made regarding the woman's pelvis. By such arrangement much time and unnecessary inconvenience is often avoided. The specimen is

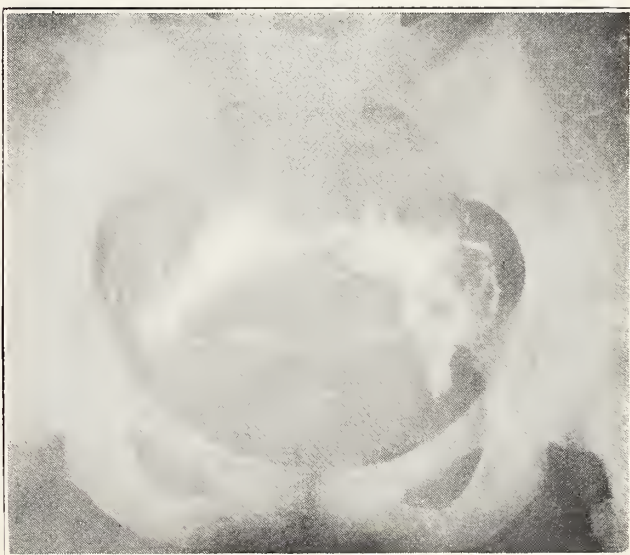


FIGURE V
Same as Figure IV twenty-four hours later. Tubes open. Note lipiodol in pelvic cavity.

obtained with a medicine dropper, the tip of which has been drawn out to increase its length. The cervical specimen is generally small and is placed in a drop of saline on a clean glass slide. The specimen from the pool is usually abundant, provided the pool has not been drained. Both specimens are carefully examined under the microscope, and the number, activity and type of spermatozoa determined. This procedure not only permits a study of the male element, but also the effect, if any, of the vaginal secretions upon the spermatozoa. The presence of active, normal appearing spermatozoa in the cervical specimen, probably qualifies the husband and relieves him of the responsibility for the non-fertile union.

In treating these patients, any obvious or contributing cause should be corrected. In women the therapeutic value of carbon dioxide gas injection in breaking up fine adhesions around the

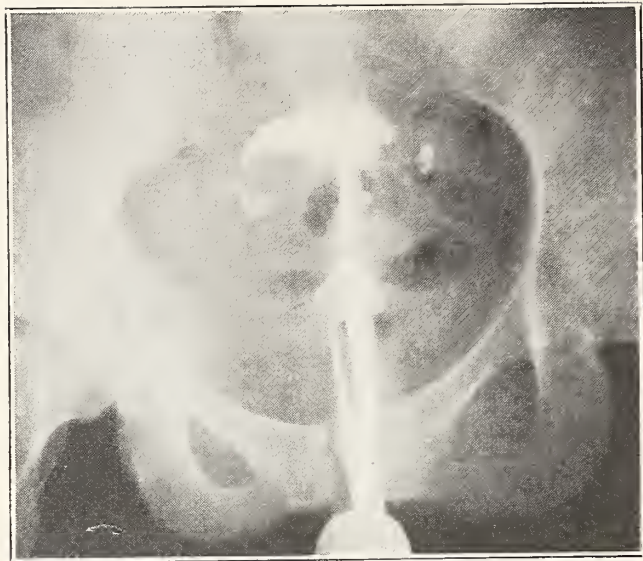


FIGURE VI
Lipiodol injection of tubes and uterus

fimbriated ends of the tubes should not be overlooked. Possible therapeutic value from the use of iodized oil in clearing up minor degrees of tubal involvement has been suggested. When the tubes are closed at the outer ends only, plastic operation may be undertaken. In the past the results from this procedure have not justified the risk. With new methods of diagnosis, permitting greater selectivity of cases operated, it is probable in the future that this operation will find much to recommend it.

Lesions of the cervix are at least predisposing factors if not the actual cause of sterility and should be carefully treated. The use of the electrocautery in this connection may be considered to advantage.

In relative sterility with laceration of the perineum and drainage of the seminal pool, repair of the pelvic floor is indicated. The use of alkaline douches previous to coitus is of questionable value, though its cleansing effect may do some good.

When a chronic cervical discharge, or tenacious mucus plug, persists in spite of treatment, artificial insemination may be tried. (Figure VIII.) This is also a useful procedure in women with a small anteflexed uterus. The semen for injection is best obtained in a sterile container at the time of coitus and injected through a round-tipped canula to prevent damage to the uterus. This treatment should not be used in cases of frank infection of the cervix. Like all intra-uterine procedures it is not without its dangers and should always be performed with great care.

The value of general measures and upbuilding regime in any situation is hard to overestimate.

Possibly its importance in this connection has been exaggerated but it should nevertheless be included in our treatment.

Satisfactory results in the treatment of general constitutional diseases and endocrine disturbances are slow to appear and the prognosis for conception is not good in these patients.

Absence of spermatozoa in the semen is an important finding but may be only temporary. Repeated examinations are necessary before passing judgment. Inactive or immature spermatozoa may be the result of over-indulgence or general run-down condition. This can often be corrected by proper regulation of the individual's living habits. Injuries to the male genital organs or congenital defects can rarely be overcome. In general the husband is less amenable to treatment than the wife. So long as he is able to maintain the marital relationship he considers himself quite well and fails to give the fullest cooperation in treatment advised.

While diagnostic procedures in the study of sterility have advanced it does not follow that treatment has progressed to a like degree. From the diagnostic side we are still faced with the fact that little is known regarding the spermatozoa and ova, particularly the latter. The ovary and its relationship to sterility still remains the most important unsolved item in the study of the female.

The part played by diet in sterility is yet undetermined. It does not seem probable, however, with our elaborate and varying diets that this relationship can be important.

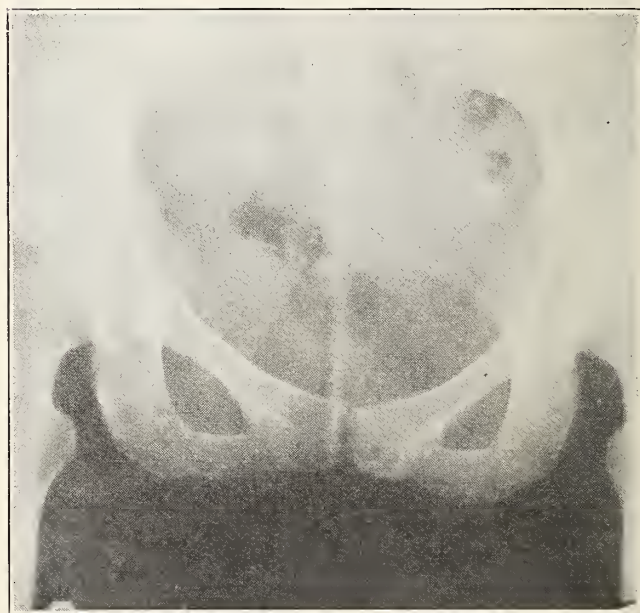


FIGURE VII
Same as Figure VI twenty-four hours later. Tubes closed. Note absence of free lipiodol in pelvic cavity.

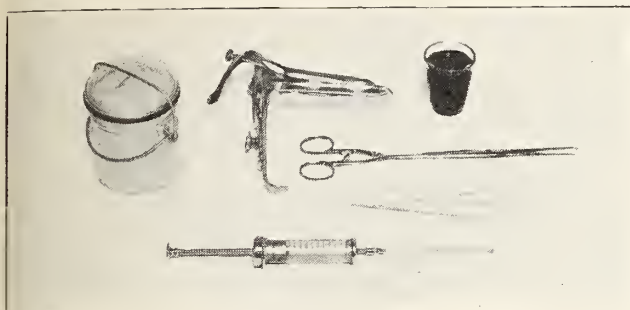


FIGURE VIII

Instruments used for artificial insemination

In view of recent work regarding the male element it is possible that man's responsibility will definitely increase. Future work may show that in hitherto unsuspected cases, the husband, though seemingly normal, is responsible for the non-fertile union.

Even though the etiology may be found, the treatment is not always satisfactory.

Necessity, however, is the mother of invention and even in this condition, the efforts of the afflicted and the interest of physicians will ultimately result in a remedy for most cases.

Discussion

Dr. Charles H. Magee, Burlington—I want to discuss this question. As the young gentleman was reading his paper, and he is a fluent speaker, I said to myself—will it be five, ten or twenty years when all this will be swept into oblivion? Now, imagine a woman coming to a doctor to allow herself to be manipulated like that, an affront put on the husband—she has something in her pocket by which she may get artificial insemination. Artificial insemination may be all right, but so far as I am concerned I prefer the old-fashioned way. I can see that this does not meet your approval. Don't do it, boys. And I want to say this: That a woman who would allow a thing of that kind, her being sterile is no loss to the world, for she is unfit to become a mother. She must have modesty. The essayist speaks of taking his stethoscope and listening to musical sounds in the pelvis; the key of C means so and so, the key of G means so and so, and A sharp means a lot. So he needs, besides the apparatus described, a man with a piano that gives him the keynote. Such infernal nonsense! I never heard anything given so poetically that I was more disgusted with than this. I say once more that it will be but a little while when such stuff as that will quietly be swept into oblivion.

Dr. J. T. Hanna, Burlington—There is one practical point that I wish to add to this very commendable paper. In actual practice it is sometimes discovered in examining the seminal pool that there are no spermatozoa present. Dr. Emil Ries of Chicago stated that under such circumstances we should never tell the couple that they cannot have chil-

dren, because sometimes pregnancy does occur and the home is kept intact; and peace and harmony prevail, instead of being disrupted had the husband been told positively that he was permanently sterile. Advise after this fashion: "You are sterile at the present time; how long you will remain sterile cannot be foretold."

Dr. Paul W. Van Metre, Rockwell City—I think it is a rank discourtesy to the essayist to be spoken to in the tone that Dr. Magee has used. We as practitioners can gain something from this essayist. I can only say that the elderly brother may have been a father, but can never be a mother. Yesterday I was sending a young lady to the Salvation Army Home and said to her—I hope you will have your child adopted, and she burst into tears. The eminence of such men as Reynolds of Boston, Dickinson of New York, and others who have given this matter their countenance, should make us listen with respect to anything that is presented on the subject of sterility before our Society.

Dr. Wm. H. Dewey, Merville—I wish to commend the essayist on the wonderful paper he has given us. Evidently I am about the same age as the speaker whom I follow, Dr. Magee, and I want to say there is nothing that so becomes a white-haired man as modesty and humility and an open mind. What ails us old fellows is that we would clog the wheels of progress, because we feel that we cannot keep up with the procession. There is no use in mere man trying to encompass the beauties and wonders of a woman's mind. Dr. Magee refers in rather derogatory terms to the woman who greatly desires, yet through no fault of her own is doomed to be deprived of that holy feel, that pull of her baby's mouth upon her breasts. There is nothing like it, there is nothing like the heart throbs of a mother. Whether a woman has or has not a baby, she wants a baby, and if science can make it possible for a childless woman to have a baby—I say all hail science! As Dr. Magee suggests, we have experience, but, gentlemen, by that same token we must ever consider that it is the glory of science to be progressive, and as rational men and doctors our experiences must keep step with the progress of science.

Dr. Thomas F. Thornton, Waterloo—I want to say at the outset that I enjoyed Dr. Miller's paper very much and also the discussion by Dr. Dewey. It is not my purpose to discuss the paper, but I wish to ask Dr. Miller to elucidate a little more fully the subject of cervical infection, and to give us his opinion on the value of Sturmdorf's tracheloplasty versus the cautery. He mentioned the cautery, but not the other procedure.

Dr. Emil C. Junger, Soldier—I want to come to the relief of Brother Magee. He has done a whole lot for this Society, and last night we heard that "from the conflict of ideas comes growth". So do not let us jump on somebody because he thinks differently from ourselves. This artificial insemination

is a touchy subject, no matter how it is done. You had better get the consent of the patient before you begin to make any advances. Once you get that it is nobody's business how you proceed if the end justifies the means. Science is only understanding nature and Dr. Magee nor any other scientific man objects to using it for the benefit of humanity even if it is a little different in method than the "Old Way" that suits us best.

Dr. Miller (closing)—There are two questions to be answered. One with reference to the statement that we should never tell these people that they cannot have children. It may not be wise as a rule to commit ourselves so broadly but on the other hand these people often demand a definite answer. If we can tell them that the chances of their having children are very slight they will then be able to consider adoption of a child. Very often that is the one thing they want to know. In answer to Dr. Thornton's question would say that I do not believe the Sturmdorf operation generally applicable to nulliparae. It is not always an easy procedure, particularly in women who have had no children and since it is more or less of a cervical amputation it would have to be considered as an etiological factor in abortion or premature labor should pregnancy later occur. In nulliparae the use of the cautery or local applications would be my choice.

OTITIS MEDIA IN CHILDHOOD*

JACK V. TREYNOR, M.D., Council Bluffs

In employing a subject such as the title suggests it is not my purpose to usurp the place of the nose and throat specialist. The early recognition of otitis media is not the duty of the otologist but of the general practitioner or the pediatricist. I wish particularly to emphasize the fact that if the patient with otitis media is to be sent to the otologist in time to receive the most effective treatment his condition must be recognized early. In as much as the diagnosis of otitis media can be made with certainty in but one way, that is, by direct examination of the eardrum, it behooves each of us to familiarize himself not only with the technique of examination, but with the varying aspects of an inflamed drum membrane.

If we are to realize the importance of otitis media, we must understand how frequently this condition is responsible for other conditions which seem to have no relation to the ear cavity nor even to the respiratory tract. We must likewise understand that otitis media may occur without any subjective symptoms referable to the

ear. The younger our patient, the more frequently is this true.

Let us review the subjective symptoms of otitis media in the order of frequency with which they occur:

Fever—Probably there are but few patients with otitis media in whom this symptom does not occur at some time. Certainly this is true in those cases complicating the eruptive fevers. But it is just as certain that fever may not occur, especially in small infants, and particularly in those suffering from pre-existing malnutrition. As to height, the fever may range from a fraction of a degree to 104-105 degrees.

Restlessness and sleeplessness are as common as fever. But here again, in the very small infant, or the infant suffering from inanition, this symptom may be absent. Both symptoms no doubt represent an expression of—

Pain, which may be very marked or not present. In the older child the pain of otitis is usually located behind the ear and in the neck. In the small child and infant it is not localized but may be expressed by crying attacks, particularly at night, or by the child's handling of the auricle. Frequently we see resistance toward any attempt toward manipulation of the ear. Tenderness of the auricle and canal is very often present but just as often absent. Frequently I have seen marked resistance toward any manipulation or examination of the ear when there is no inflammation either of the external or middle ear. Just as frequently I have seen complete absence of tenderness when there is marked inflammation of the middle ear.

Deafness is a fairly constant symptom and occasionally the only one subjectively appreciated. While there is undoubtedly deafness in the otitis of small infants it cannot be determined satisfactorily and therefore is of no importance clinically.

So we see that if we are to depend to any extent upon symptoms or external examination we will make many a wrong diagnosis of otitis media and will ignore many a case in which the condition is well established.

Periodically, in our work with children, we encounter cases in which there is fever, not explainable until the ears are examined. The fact that there is no pain nor deafness is difficult to explain, but since paracentesis gives very definite relief there can be no question of wrong diagnosis. These cases usually show an eardrum of a very interesting type, described below as type II. Paracentesis will reveal gas and serum but no pus.

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

Within the last few years a class of cases has been described in which an infant, previously well, suddenly loses weight, has a diarrhea of varying severity, often has vomiting and usually fever. Prostration and inanition are extreme and the mortality is high without proper treatment. Excepting in the ears, nothing of significance is found in the physical examination. Most of these cases have a mastoiditis, usually bilateral, without demonstrable otitis. I have the feeling that all of these cases, early in their course would show enough involvement of the middle ear to be recognized by otoscopy. Possibly in a number of cases mastoid involvement could be prevented by such early recognition. Chart I shows a typical case.

Much more frequent than the foregoing are the cases illustrated in Chart II. In this instance we see a sharp interruption of a normal weight gain, with marked overnight loss of weight but without rise of temperature, evidence of pain, vomiting or frequent stools. In these cases otoscopy reveals otitis media, purulent in nature. As the chart shows, within twenty-four hours after paracentesis, the weight has rebounded to about its original level. Had we been governed in any one of these cases by any finding other than otoscopy, the otitis would never have been recognized. These cases are extremely common, not only in the hospital but in the home.

Convulsions are not frequent enough to be classed as a symptom of otitis media. However, we do see them especially in spasmophilia, where the otitis is without any question the exciting cause. Here again, because our child is in no condition to indicate by speech or sign the site of his trouble, we are compelled to make our diagnosis by means of otoscopy alone. In the course of severe illness, particularly pneumonia,

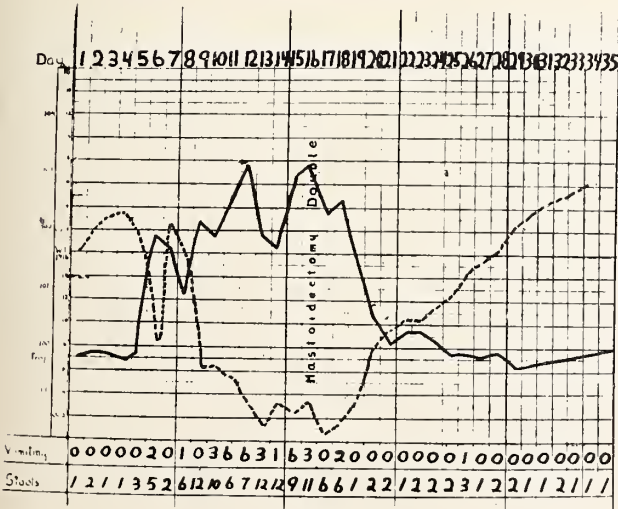


CHART I

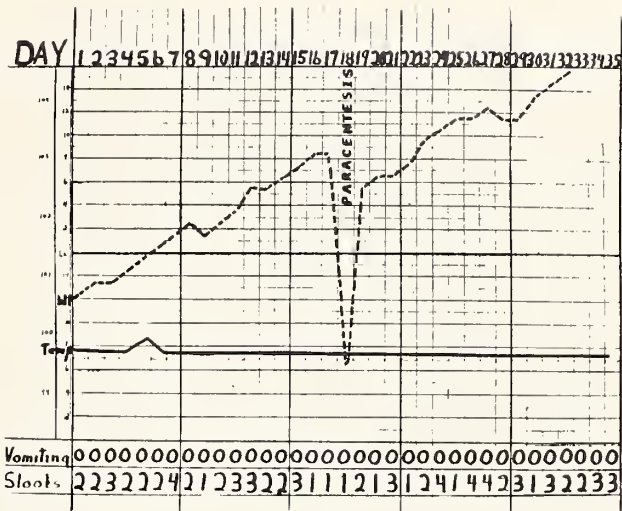


CHART II

we receive no information from the patient that leads to recognition of an otitis. Routine, frequent examination of the drums is our only recourse.

That otitis can give a typical picture of meningismus and so, closely simulate meningitis is well known. That by increased respiration, fever and coincidence with bronchitis, otitis can also lead us to a mistaken diagnosis of bronchopneumonia, is not so well known, but is proved by the occasional subsidence of symptoms when an unsuspected otitis ruptures.

Otoscopy in an infant or small child presents certain difficulties which may prevent a satisfactory view of the eardrum. I make it a rule, always to mummify my patient by wrapping him snugly in a blanket. By this means I am able without assistance, if necessary, to complete my examination. I remove all wax from the canal, for a very small wax flake may entirely obscure the drum membrane. I use speculæ varying in diameter from 2 to 5 m.m., depending upon the size and patency of the ear canal, and depend entirely upon an electric otoscope which will concentrate very brilliant illumination upon the drum, and which magnifies the image about three diameters. An examination is worthless unless the entire drum is seen.

Below is an entirely arbitrary classification which outlines the types of drums seen by the otoscope. In a general way each of these types has significance in regard to the type of otitis with which we are dealing and to the indications for treatment. It must be remembered that each type bears, as a rule, a chronological relation to the others, that each is but a gradation from another, depending upon progression or retrogression of the otitic condition:

(1) Drum the color of ripe grape skin, no reflex (light), little or no bulging. Paracentesis reveals bloody serum.

(2) Drum reddened, no reflex, no bulging. Paracentesis reveals gas, serum or both.

(3) Drum reddened, no reflex, network of dilated capillaries extending from periphery toward center. Little or no bulging. Paracentesis reveals serum or seropus.

(4) Drum evenly reddened, no reflex, bulging in its entirety or in any segment. (It is not at all infrequent to see the posterior half or even the postero superior quadrant so involved, and the remainder of the drum almost normal in appearance.) Paracentesis reveals pus.

(5) Drum red at periphery, anemic at center, bulging. Paracentesis reveals pus.

(6) Drum pale, yellow white, parchment like. Little or no bulging. Paracentesis reveals thick pus, sometimes inspissated. Very often overlooked because of its lack of color and similarity to normal drum on casual inspection.

CONCLUSIONS

Otitis media can be recognized consistently, only if routine otoscopy be included in examination of a patient. Intrinsically and in relation to other disease it is of tremendous importance. Satisfactory otoscopy can be performed only by proper technique and with thorough appreciation of the varying aspects of the drum picture in otitis.

Discussion

Dr. Lloyd G. Howard, Council Bluffs—I feel that in appointing me to open the discussion of this paper the choice has not been so very fortunate, inasmuch as Dr. Jack and I have worked this matter out pretty much together, therefore the ideas he has expressed here have been the ideas that both of us have held in common. However, I wish to mention a few additional points. Probably one of the most important recent forward steps in the treatment of diseases of children has been early recognition of nose, throat, and ear infections, and especially ear infections, which are not complained of by the baby as a rule. Recognition of these conditions is, I believe, primarily the duty of the pediatricist, because the pediatricist or the practicing physician sees these patients first, therefore he should recognize the condition and refer the case, if desired, to the otologist. As Dr. Treynor has brought out, the drumhead must be seen in order to diagnose the case. Without recognizing the different types of drumheads seen in various diseased conditions, we cannot recognize the particular condition present. Our knowledge is not going to be developed merely by saying that there are six or seven different pictures. Our ability to diagnose these cases is de-

veloped by first seeing the patient's eardrum and correlating the local findings with the general condition present, then getting the results of myringotomy. If one sees the diseased eardrum and does not have a myringotomy, one will not appreciate what the condition is or be able to determine exactly what pathology is present. One other point I wish to mention is the absence of pain in many of these cases. While some of the patients express pain, most of them do not show a great deal of pain, due to the fact that the Eustachian tube of the baby is relatively larger in diameter and shorter than is the adult Eustachian tube. For this reason there is not the increased pressure in the middle ear cavity that there is as a rule in the adult patient with an otitis media, because the child has some relief of pressure through the Eustachian tube. This paper is of great importance to the pediatricist and the general practitioner, and I think it merits thorough discussion by the members present.

Dr. Ben C. Hamilton, Jr., Jefferson—I was very much pleased to be able to hear this paper because of the great importance that it has to the general practitioner. Otitis media is one of the common conditions with which he comes in contact, and the important point is its early recognition. But that is difficult. I will cite two or three cases as illustrations. In a routine examination of eardrums one is apt to think he is able to differentiate the normal from the abnormal, and then suddenly he has an enlightening. In the case of a boy of about four with temperature normal, careful examination did not show any abnormality of the eardrums, I passed them as normal and made a diagnosis of acute gastrointestinal upset. The next morning I went back and the mother said, "The right ear ruptured during the night". Examination showed a purulent material in the canal. In another similar case the patient had a temperature and on examination of both eardrums they appeared to be normal. I told the parents that I believed the ears were all right. On returning next morning I found that one ear had ruptured spontaneously. The next case was in a child of two years old who had symptoms of coryza and temperature, and I was called. There was high temperature, increased respirations, bronchial breathing and a leucocyte count of 20,000, but again the eardrums looked all right. I treated the case for several days and did not identify it. Some mornings the temperature would be normal, then again it would be as high as 103.5. Early one morning the family called me saying that the baby was having croup, and they were very much alarmed because several years before they had lost a child with croup. I went out and decided something had to be done, and as a last resort I did a double paracentesis of the drums. The left ear was negative, while in the right ear considerable pus was found. So there again was final recognition of the condition. At the present time my procedure with young children is as a rule that of elimination. If I can eliminate every other cause that might be producing

the symptoms present, and the eardrums do not have an abnormal appearance, the chances are that with high temperature and continued illness the ears should be opened, and a good many times the results prove that the procedure is justifiable. In regard to the etiology, there is just one cause to which I would call attention, and that is if the baby has an extra amount of adenoid tissue he will continue to have otitis media which will come and go, come and go, and will not be cured until the adenoid tissue has been removed; or if there is an abnormally large foramen of the Eustachian tube in a young child, vigorous blowing of the nostrils will often force infection into the Eustachian tube.

Dr. Frank M. Fuller, Keokuk—This paper simply emphasizes some of the things that we have been stressing in this Society for a good many years, and that is the particular necessity of thorough examination of our patients, little ones especially. We are familiar with the old statement that in infants gastrointestinal disturbances during the first few months of life are the predominant pathological conditions found, but as they reach childhood, upper respiratory and chest conditions are predominant, and when they become of school age the infectious diseases are the ones that impress us. We are too much inclined to generalize in those statements. With infants the little things are important signs. These children with temperature are brought to us, and the giving of a dose of some laxative to clear up the intestinal tract is the limit of our treatment. The importance of exactness in the report of the examination of these older children is not because of the immediate condition present, but it summarizes the things we have been getting here for the last two or three days. We know that the infections which occur in the head have a very positive effect upon future infections, upon the respiratory tract and the heart itself, and we must keep in mind that these neglected cases are the potential sources of heart conditions which have been so forcefully presented here. A thorough, careful examination of a child is just as important as that of a banker, and, if we are going to become responsible for the welfare of these children, we must realize that they are as much entitled to careful consideration as an older patient. Then again, we hear doctors say that they do not know anything about children. My reaction to that statement is that if a man does not know anything about children he ought not to take care of them. We hear men say the same thing about obstetrics, and still they go on delivering women. We men who are dealing with internal medicine might as well say—I know nothing of the operation for appendicitis, but I am going on and operate. If we are conscious within ourselves that we do not know children and their symptoms, if we recognize the fact that we are not familiar with them and are not willing to make ourselves competent to recognize the meaning of these symptoms in children, we ought to leave these cases alone or

refer them to some one who is willing and anxious and industrious enough to equip himself to recognize the symptoms. The symptomatology of otitis media is very definite if we take the trouble to study it. Most of us diagnose any condition only by pain, but the Doctor states that many of these cases have no pain. Then there is the other extreme so far as pain is concerned, and I do not know of anything that produces more intense pain and elicits such an agonizing cry as does otitis media; I do not know of anything, unless it is an intussusception, that will produce such a constant and never ceasing fretfulness and care as these cases of otitis media. But we must not get fixed in our mind the idea that pain is the outstanding symptom. Many cases of serious infection have no pain at all. I wish to ask Dr. Treynor a question: In the cultures made of these cases, in what percentage did he find the pneumococcus to be the cause of otitis media? We know that the pneumococcus is a very common source of infection in these cases.

Dr. Charles B. Taylor, Ottumwa—Dr. Treynor has presented one of the most essential papers we have had at this meeting. Why? Because a world of youngsters have otitis media, a world of them have some kind of nasal infection, and the otitis is always secondary to nasal infection and many of these little chaps go on to involvement of the antrum or mastoid. They have very little mastoid trouble early in life, but later they will develop a mastoiditis. It is not necessary that you become expert in the matter of diagnosis as to the types of drums of which Dr. Treynor has spoken here, but it is essential that you look at drums sufficiently to learn something about them. I can not see why any intelligent man is unable to use a head mirror or some of these fancy lights perpetrated by the instrument-houses, which will serve to give him an indication that something is going wrong there. The subject of systemic infection as well as local infection has been brought out by the essayist, and the systemic infection is very great in many of these conditions. It is not always easy to open up an eardrum right, or diagnose the condition correctly. I think many specialists have difficulty in this. So Dr. Hamilton need not worry about having seen a clear drum today and tomorrow morning it is ruptured. The drumhead will look absolutely normal today and tomorrow morning it is ruptured. I have seen that change in three hours' time, when there is present a big blister ready to rupture. It is the streptococcic or pneumococcic infection that is going to give you all kinds of trouble.

Dr. James H. Gasson, Bedford—A young lady of twenty-five came to my office in regard to a discharge from her ear. On examination I saw something in the ear, pulled it out and it was a pledget of cotton. She did not know it was there and it caused much distress and discharge. A little fellow five years old had for a month been receiving treatment for worms, when the only trouble was that he had a

chunk of rubber up the nose. So I think it is important that we have the proper instruments for making these examinations.

Dr. Treynor (closing)—While Dr. Howard feels that it is not essential to be able to recognize so many types of inflamed drum membranes, I am sure it is very important. If we can describe a drum accurately we have seen that drum in its entirety. A great many drum membranes are considered normal because a tiny bit of wax, not only obscures the drum but often throws back a shiny light reflex easily confused with a normal drum reflex. I have had no success with the ordinary head mirror and speculum although I know from experience that some men obtain entirely accurate estimates of the drum with this means of examination. The point is: Whichever method we use, let us be sure that we are seeing all there is to see. Dr. Hamilton mentioned a very common type of case; that case which, because of temperature, rapid respirations and diffuse rales, you are tempted to consider pneumonia. If the ears are not examined there is grief in store for the attending doctor, because in a large percentage of the cases the real cause of the picture is an otitis, and when the drums rupture spontaneously, symptoms disappear. Dr. Hamilton also spoke of performing exploratory paracentesis without recognizable signs of otitis. While I feel that this procedure is occasionally justified, I am sure that more careful study of suspected drum membranes will reduce the number of times this is really necessary. Dr. Fuller spoke about the changing attitude toward gastrointestinal disease in infants. As you know, up to perhaps four or five years ago, practically all of our gastrointestinal upsets were considered due to food insults, or to intolerance of the infant toward sugars, fats, or other food constituents. Though it is true that these intolerances do exist, we now know that a large proportion of them arise secondary to a respiratory infection, very often including otitis. I have seen a considerable number of such upsets corrected by drainage of an infected middle ear, without particular attention to revision of diet. Dr. Hamilton mentioned the rapidity with which an ear drum can change from an entirely normal to a definitely pathological condition. This is so true that it emphasizes the necessity of frequent examination of the ears. Because the ears are negative at our first otoscopy we should not omit subsequent examinations.

HISTORY OF MEDICINE IN NEBRASKA

Ella Fleishman Auerbach of the staff of the Omaha Bee has been employed to compile a complete history of the medical profession of Nebraska. Dr. Albert F. Tyler of Omaha, managing editor of the official Journal of the American College of Physical Therapy is supervisor of the project. The history is to be published April 1st.

REDUCTION OF MORTALITY RATE IN BENIGN PROSTATIC HYPERTROPHY*

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Fostered by the physician's desire to promote longevity, scientific investigation has disclosed much regarding the cause and effect of disease. Preventive medicine has exerted a profound influence on mortality in childhood: a higher percentage of children live to adult age and are subject to the organic disturbances of middle and old age. Advances in the medical sciences have afforded methods of conferring relative immunity against a number of diseases, epidemic in nature, and lethal in effect. Metabolic studies have shown the extent of the effect of disease on vital organs, have established methods of measuring those effects, have provided guides in the treatment of disease and have afforded a means of relative prognosis. The conquest of accuracy in the diagnosis of the surgical lesions of the gastrointestinal, genitourinary, and other tracts has depended on the perfection of the roentgen ray and its adjunctive mechanisms. As the result of the advances in the medical sciences during the last decade, the effects of disease are better understood. Preoperative preparation, to offset these resulting effects, has been rewarded by material reduction in the risk of operation.

The studies of disturbances in the chemical constitution of the blood, particularly in the obstructive lesions of the gastrointestinal and urinary tracts, have not only disclosed the nature of the effect of disease on vital organs but have served to combine the interest and efforts of the internist and surgeon. Most so-called surgical conditions present certain phases best appreciated by the clinician, and both preoperatively and postoperatively the attention of the internist is indispensable.

The combined efforts of surgeon and clinician are more strongly demanded in the treatment of the prostate than in most conditions. The patient with benign prostatic hypertrophy is a poor subject for operation not only because of the results of prostatic obstruction, but also because of associated disease incident to the advanced age at which prostatic disease occurs. Only through the cooperation of the internist, urologist and surgeon may the successful man-

*Read at Four County District Medical Meeting at Cherokee, Iowa, November 16, 1927.

agement of the patient with prostatic obstruction be carried out.

CARDIOVASCULAR COMPLICATIONS

Sometimes grave organic disturbances are associated with prostatic obstruction and although obstruction may be of prime importance the co-incident organic disease must be reckoned with in the treatment of the patient. The stresses and strains of life result in degenerative changes in the cardiovascular system. The renal excretory mechanism is usually directly affected by prostatic obstruction and renal insufficiency results; however, renal function is impaired directly by organic disease of the cardiovascular system in the absence of prostatic obstruction. The sum of the changes due to the two diseases produces the syndrome of cardiovascular renal disease which is of prime importance in the consideration of the problems associated with the management of benign prostatic hypertrophy. Prostatic obstruction occurs at a later age than the diseases which usually demand operative treatment, and the degenerative changes in the cardiovascular system and renal excretory mechanism common at that age exert a marked influence on its management. Ninety-five per cent of these patients are more than fifty years of age; 75 per cent are between sixty and seventy-five years of age.

Willius studied the records in 705 cases of prostatic hypertrophy including electrocardiographic data and noted cardiovascular disease in 42 per cent. Arteriosclerotic disease occurred most frequently, in 43 per cent; arteriosclerosis associated with hypertension occurred in 36 per cent and hypertensive cardiac disease not associated with outstanding arteriosclerotic features in 17 per cent. Miscellaneous types of cardiac disease occurred in 4 per cent and included rheumatic endocarditis with stenosis or incompetence of the mitral or aortic valves, myocarditis, and pericarditis. In 8 per cent of the cases angina pectoris was present. Willius concluded that the incidence of cardiovascular disease is higher with prostatic obstruction than with many other diseases during the same decades, indicating that coexisting cardiovascular disease is aggravated by persistent urinary retention.

Unquestionably the renal insufficiency is a factor in decreasing the cardiovascular reserve in prostatic hypertrophy. The improvement of the cardiovascular reserve coincident with improvement of renal function, following gradual decompression of the bladder and prolonged urethral or suprapubic drainage, is noteworthy in conjunction with Willius' observation on the in-

cidence of cardiac disease in cases of prostatic hypertrophy. I have observed numerous patients in uremic states and on the point of a cardiac break, whose cardiovascular renal reserve has been so restored by drainage that an operation could be performed safely and successfully.

The frequency of cardiovascular disease in prostatic obstruction emphasizes the necessity for careful examination in all cases. Electrocardiographic studies are indispensable. Most patients with cardiovascular disease, if properly prepared, possess adequate cardiovascular renal reserve for prostatectomy. However, in the presence of coronary sclerosis and angina pectoris, the question of the advisability of prostatectomy should be cautiously approached. Cardiac decompensation is a distinct contraindication to operation. Prostatectomy is not performed in the presence of malignant hypertension except under most unusual circumstances, since less than 10 per cent of these patients live for five years and the majority live for less than two years.

RENAL COMPLICATIONS

The success of any operation for the relief of prostatic obstruction depends largely on the condition of the kidneys. The renal complications most frequently observed with prostatic obstruction are insufficiency and infection. Renal insufficiency in prostatic obstruction usually occurs as the result of longstanding back pressure from residual urine and is usually the concern of preoperative treatment. The remedy is drainage of the bladder which immediately relieves the back pressure and affords an opportunity for the restoration of renal function. The time required for restoration of function is directly proportional to the degree of renal insufficiency. In instances of longstanding urinary retention with a high degree of renal insufficiency an interval of many months may be necessary between the institution of drainage and the performance of prostatectomy with a relative degree of safety.

Unquestionably renal infection is a contributing factor in the production of renal insufficiency in many cases. However, with the institution of drainage and adequate treatment, the infection usually entirely subsides, but in many cases reappears postoperatively. Exacerbation of renal infection postoperatively is usually of little consequence when adequate preoperative treatment has been instituted; however, renal infection continues to be a most important cause of death after prostatectomy when preoperative treatment has been inadequate or too brief. During the period of preoperative preparation

immunity to the infection usually develops which withstands the postoperative exacerbation unless the operation is complicated by such serious loss of blood, or postoperative bleeding persists to such an extent that resistance to infection is materially reduced. It must be assumed that there is infection in the urinary tract in all these cases and prophylactic measures in the form of accurate operative hemostasis are more effective than direct methods of combating postoperative infection after it has recurred.

RESULTS OF PREOPERATIVE MANAGEMENT

Experience has shown that the patient with prostatic obstruction is, as a rule, a poor subject for immediate operation. In 1925, 1783 cases were reviewed in which suprapubic prostatectomy was performed at the Mayo Clinic between January 1, 1913 and January 1, 1925, with an average mortality rate of 5.5 per cent. The deaths occurring after prostatectomy were studied to determine the relationship between preoperative preparation and the mortality rate. It was shown that in the group of patients, apparently in good physical condition and showing few or no signs of renal injury by the tests of renal function, operated on immediately without preparation, there was a mortality rate nearly as great as in the group of patients in poor general condition with marked renal insufficiency and infection, operated on only after adequate preparation. It has been three years since preoperative treatment has been instituted in all cases previous to prostatectomy at the Mayo Clinic. Before that time 37 per cent of patients, because of apparently good physical condition and what appeared to be large cardiovascular-renal reserve, were considered good subjects for the one-stage operation without any preliminary treatment. However, 44 per cent of the deaths after prostatectomy occurred in this group and the mortality rate was 6.6 per cent. During the same period 437 patients (24.6 per cent) considered the poorest subjects for operation were treated by preliminary cystostomy and were adequately prepared before prostatectomy; the mortality rate in this group was 7.5 per cent. The remaining 38 per cent of patients, the group with moderately impaired cardiovascular-renal reserve, were treated by the installation of a permanent indwelling catheter until they were considered to be in fair condition for operation. The one-stage suprapubic operation was used and the mortality rate was 3.3 per cent.

The relationship of preliminary treatment to the mortality rate is apparent. January 1, 1925,

preoperative treatment for a minimum of ten days in all cases was adopted. During that year suprapubic prostatectomy was performed in 255 cases (seven of carcinoma) with deaths in only six, a mortality rate of 2.3 per cent. A one-stage operation was performed in 188 cases with deaths in four, a mortality rate of 2.1 per cent, as against a two-stage operation in sixty-seven cases with death in two, a mortality rate of 2.9 per cent.

The merits of preliminary treatment in all cases have been definitely established and it may be asserted that prostatectomy should never be performed without a period of preliminary treatment. Drainage of the bladder is of prime importance, and, unless there are good reasons for cystostomy, should be established by a permanent indwelling urethral catheter and continued until the cardiovascular-renal reserve has been restored to the point of relative safety for operation. Vesical lesions, such as stones, diverticula, and malignant tumors, associated with marked reduction of cardiovascular-renal reserve, requiring a long period of preparation, still demand cystostomy as the method of drainage. Occasionally intolerance to the urethral catheter necessitates cystostomy; however, fully 75 per cent of patients may be prepared by drainage through the urethral catheter, facilitating the one-stage operation in a visible field with opportunity for accuracy of procedure and hemostasis.

EFFECTS ON THE RESPIRATORY SYSTEM

The recent changes in the type of anesthetic used for operations in this field have exerted profound influence not only on the respiratory system, but also on cardiovascular-renal reserve. Ether, as a general anesthetic, presents the greatest hazards in cases of prostatic obstruction, not in the administration, for there is a wider margin of safety during ether anesthesia than in that produced by any other general anesthetic, but in the subsequent renal depression and acute pulmonary complications. The patient with prostatic obstruction whose renal insufficiency has been reduced by established methods of preoperative treatment is particularly susceptible to the renal depression caused by ether anesthesia. Patients at the age when prostatectomy is usually performed are susceptible to the inhalation type of pneumonia, to acute exacerbation of chronic bronchitis or to bronchiectasis. The various gas anesthetics have much to recommend them; however, except under the conditions of skillful administration, they often produce cyanosis when anesthesia is carried to the point of complete re-

laxation. Lundy has recently called attention to the deleterious effect of repeated cyanosis. Regional anesthesia which has properly supplanted general anesthesia in this field of surgery, minimizes postoperative renal depression and the pulmonary complications from inhalation. The pulmonary complications occurring after operation under regional anesthesia are usually embolic in origin. While pulmonary complications are still encountered, the oxygen chamber and tent have contributed to the reduction of mortality from this cause.

Fatal pulmonary embolism has occurred only once following prostatectomy in the last three years during which time all patients have been given a minimum of ten days of preoperative treatment. During the preceding period, from January, 1913 to January, 1925, pulmonary embolism was responsible for 13 per cent of the deaths following prostatectomy. The fact that only two of the patients who died from pulmonary embolism had received preoperative preparation is noteworthy. Inasmuch as preoperative treatment reduces infection in the urinary tract, the relationship of preoperative treatment to fatal pulmonary embolism serves as evidence in support of Rosenow's theory of infection in the production of thrombosis and embolism.

SUMMARY

It is imperative to the successful management of prostatic obstruction, that the condition be looked on from a general medical point of view; not alone by the urologist as a disease of the urinary tract, not alone by the surgeon as a lesion requiring operation, but by the internist as a systemic disease. I have purposely avoided the consideration of the surgical principles involved in prostatectomy, for I wish to emphasize the idea that the patient with prostatic obstruction is largely a medical patient; a surgical condition is present, but there are aspects which may best be appreciated by the physician; only through the combined interest and cooperation of the internist, urologist and surgeon can the patient be operated on with the minimal risk and the assurance of the best functional result. The surgical principles involved in prostatectomy are important but, so far as mortality goes, better a poor operation after thorough medical and urologic consideration and adequate preoperative preparation, than a skillful operation without preparation.

RADICAL MAXILLARY SINUS
OPERATION AND AFTER
TREATMENT*

ROYAL F. FRENCH, M.D., Marshalltown

In reviewing the literature on the subject of maxillary sinus operations one finds a great number of operations bearing the names of different men. On analyzing these operations it is found that they fall into three distinct groups.

- 1. Intra nasal.
 - 2. Extra nasal.
 - 3. Combination of extra-intra nasal.
1. The first or intra nasal is what is known as the antro-meatal. It was first brought out by Mikulicz. It is used today in the diagnostic puncture and in acute cases for washings and treatments.
2. In the extra nasal the entrance was first made through a tooth socket. Desault, 1798, is usually given credit for the entrance through the canine fossa, while Kuster about one hundred years later revived this method and endeavored to obtain a permanent opening from the antrum into the mouth. Many ingenious appliances were brought forth to maintain the opening either through the tooth socket or in the canine fossa.
3. The third group is a combination of the first two, that is an opening (extra nasal) made through the canine fossa with permanent drainage established (intra nasal) from the antrum into the nose. In the Cauldwell-Luc operation the entrance is through the Kuster opening in canine fossa and drainage is established through the Mikulicz opening under the inferior turbinate.

This is the basis of the most of the present day radical operations on the maxillary sinus. The Denker is a modification in that the site of entrance is simply moved slightly forward to involve the crista pyramidalis. The Beck is an enlargement of the opening to include the most of the facial surface of the superior maxilla. While most of the radical operations enter the sinus by way of the facial side of the superior maxilla nevertheless there are a few which enter through the nasal wall and these are rather radical procedures.

In 1908 Canfield at the American Medical Association meeting in Chicago described a new intra nasal operation for the maxillary sinus, called "The submucous resection of the lateral

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927, Section Ophthalmology, Otology and Rhino-Laryngology.

nasal wall in chronic empyema of the antrum". An incision is made in front of the inferior turbinate, the mucosa is elevated from the inferior turbinate and the lateral wall of the inferior meatus. The underlying turbinate bone and lateral wall are removed, also some of the crista pyriformis. A large flap of mucous membrane is made and turned back into the antrum. Skillern in the *Laryngoscope* of November, 1914, describes a "Preturbinal Operation on Maxillary Sinus". An incision and opening is made just in front of the anterior attachment of the inferior turbinate. The inferior turbinate is not removed, enough of the bony wall is taken out so as to establish a permanent opening if possible.

Chronic infections of the maxillary sinus are not usually cured by washings and treatments through either antro-meatal punctures or through the normal ostium.

It is true that many people carry around a chronic infection of the maxillary sinus which does not cause them much trouble, nevertheless these chronic infections at some time usually require radical methods for their relief.

In the *Annals of Otology, Rhinology, and Laryngology*, Harkness says that, "Radical surgery never leaves a normal nasal cavity", and I agree with him. I do believe that the nearer we can approach the normal after a radical operation the better will be the final result, that is why it is best to leave all of the inferior turbinate if possible.

Before performing a radical operation on the maxillary sinus one's prognosis should be fairly accurate, that is the patient should have less trouble afterward that he did before. We all know of a few cases where more or less trouble still persists, in spite of a technically perfect operation. The antro-meatal opening is permanent but there is still an accumulation of pus or recurrent exacerbations which cause much discomfort.

The requirements for a good radical maxillary sinus operation are: (1) clearing antrum; (2) draining.

In giving a description to fulfill these two conditions let me describe the operation which seems to me to best meet these requirements from both a clinical and anatomical standpoint. I shall not attempt to include atypical cases nor the extensive work required in malignancies.

As in all operative work so radical antrum operations should first be considered from the anatomical standpoint.

I wish to thank Doctor H. J. Prentiss, of the State University of Iowa, for not only his sug-

gestions but also his kindness in permitting me to study and compare his specimens.

ANATOMY

The antrum is pyramidal in shape hence a cross section in either the vertical or horizontal direction is roughly triangular. A horizontal section shows the three sides, a nasal or basal which articulates with the palate, an external or facial, and a posterior or zygomatic side. If one assumes that these sides are fairly straight then we have a normal antrum both as to size and shape. However, using the triangle as our foundation for study we can easily visualize the variations which are possible. Either side may be curved in or out. There may be a combination of any of the sides with incurving or out-curving. As for example the facial side might be curved in and nasal wall out. Here the antrum would be small with much dense bone between the crista pyriformis and the antrum. These are the types in which it does not seem reasonable to try to perform a Denker, Canfield or Skillern, for the specimens show a marked width of bone to be cut through before one reaches the antrum. If, however, the nasal side is straight or even slightly drawn in and the facial side curved out, then it is an easy matter to cut through the bone at the crista pyriformis and enter the antrum. In such a condition it would be much easier to maintain an opening in front of the inferior turbinate. As the various relations of the sides of the triangle are found so one can realize how the different shapes of the antrum occur, and can see why occasionally it is hard to make the antro-meatal puncture.

In studying a vertical section we also find it triangular and here again the same combinations with resulting variations can be found. In a cross section here is seen an orbital nasal and facial side. If the nasal side bulges out and the orbital side drops or is curved down it is very easy in the antro-meatal puncture to penetrate the orbit.

Also one can understand how at times the roots of the teeth would lead directly into the antrum or by a contraction of the two sides the tooth socket would be separated from the antrum by a thick bony mass or in other cases by an incurving of the facial wall the line of the tooth socket if continued would appear in the canine fossa.

We can also see that in certain specimens any of the upper teeth might penetrate into the antrum unless it is the incisors which are in the premaxilla, and it would not be impossible for the antrum to extend out into the premaxilla.

As for the operation, it may be performed under local or general anesthesia. Some endeavor to do all possible with a local, some patients must of necessity be operated with a local anesthetic, some it is a pleasure to operate on with local, others the reverse.

The incision through the mucous membrane and periosteum is made high, nearly in the buccal fold. When so made there is not so much danger of the sutures pulling or cutting out. Some text books give the line of incision as only a few millimeters above the gingival margin. If made low even one's needles may cut out when suturing. The periosteum should be carefully elevated so that at the finish it can be well approximated.

A procedure which has expedited the work when doing a double radical operation and you are troubled with more or less bleeding, is to put an adrenalin soaked sponge into the opening. Then remove your retractors and work on the opening in the other side. When the blood commences to obscure the work on this side put in an adrenalin pack and return to the first side. This working on first one side then the other gives the adrenalin a chance to take effect without prolonging the operative time.

Like a mastoid operation if you get into the antrum your landmarks become more definitely fixed. If the antral opening in the canine fossa is fairly well forward the anterior angle is easier cleaned out. Also the farther forward the nearer you would be to what would be a parallel continuation of the nasal wall which is to be removed. The location of the entrance through the bone is probably best located by the canine eminence which is found by following up from the cuspid. The canine fossa is just lateral to this eminence and here the bone is usually the thinnest and nearly always permits direct entrance into the antrum. After entering the antrum it seems to me is the time to decide whether to do a Caudever-Luc or a Denker. If nearly normal it does not seem necessary to cut through the usually heavy bone of the crista pyriformis with resulting bleeding of the blood vessels found in this denser bone. However, if the facial wall is contracted and nasal wall drawn in then a Denker could easily be performed, this again brings out the point as to the operations of the Canfield type. I do not believe that one can always tell just what type of antrum is present until you can see into the antrum.

The pus, polyps or hypertrophies should now be removed, leaving as much of the mucosa as

possible. A few authorities advise removing all the mucosa going on the supposition that it is diseased and degenerated. I believe the chances for a good result are better to leave all mucosa possible with the idea that it will return to somewhat near its normal character rather than have the entire antrum lined by the epithelium which will grow from the turned in flap. The natural ostium should be freed as much as possible without too great a destruction of the tissue which forms it. The antrum should be curetted as little as possible for in many cases the dental nerves are found in the walls of the antrum only covered by the mucosa. Doctor Prentiss has shown that not only can these nerves often be demonstrated as just under the mucosa but sometimes there is a bony projection into the antrum on the top of which lay the nerves, so with any extensive curetting these nerves may be injured and this in time would cause trouble with the teeth.

In removing the nasal wall the structures to be watched for are: (1) Lachrymal duct; (2) inferior turbinate; (3) floor of nose. If the nasal wall is bulging out, that is into the antrum, the specimens studied prove that it is doing so because it forms the bony canal for the lower end of the lachrymal duct, which in such a case swings down and back under the inferior turbinate. The more it bulges out the lower and farther back is found the bony lachrymal duct opening. In the majority of cases there is plenty of operative space between the lower opening of the lachrymal duct and the floor of both the nose and the antrum. However, if there is a marked curving out of the nasal wall then care should be exercised in removing this wall especially in the anterior portion. In such a case it is another contra indication for a Denker or a pre-turbinal operation.

The nasal opening should be made fairly large with special emphasis on the smoothness of the opening at the floor. If a great deal of the lining mucosa of the antrum has been removed then the incision through the nasal mucosa should be high so as to give a larger flap to turn into the antrum. If a large flap is not needed and the incision is not high the redundancy of mucosa above will contract or shrink in time so as to heal over the upper edge of the bony opening.

The work in the nose should be an endeavor to free the ostium maxillare of polyps and hypertrophies if any and to relieve infections from above. The uncinate process as it helps form the infundibulum may be so curved as to carry

secretions from the frontal sinus and empty them into the maxillary sinus. Usually it is not necessary to remove any of the inferior turbinate.

Greased packing is inserted to hold the flap in place, and placed so that it can be removed by way of the nose. The antrum may be painted with any of the antiseptics from compound tincture of benzoin to the newer dyes.

The mucous membrane and periosteum in canine fossa is sutured with three or four interrupted sutures.

The treatment: (1) Operative sequelae; (2) antrum.

1. The complications which the operation itself evoke are:

1. Hemorrhage,
2. Swelling of cheek,
3. Anesthesia in face or teeth or both,
4. Orbital complications,
5. Acute otitis media,
6. General systemic as pneumonia, septicemia, etc.

These are of course the immediate complications which may arise and are due to the operative interference and not to the chronic sinus infections only in so far as the general resistance of the patient has been lowered because of the presence of the infection.

2. Antrum complications:

1. Contraction or closing of nasal opening,
2. Polyps and hypertrophies,
3. Reinfection from infected teeth,
4. Pus collects in antrum from frontal sinus and ethmoidal cells.
5. Lack of patent ostium.

These complications are self explanatory but as no paper is quite complete without some case histories, I wish to report two cases which bring out a point which seems of importance as to the final result. That is a lack of patent or open ostium and the bearing it has on retention of secretions.

The ordinary data of the two cases is immaterial except that following a radical operation they both had some pain and a great deal of pus was present for months. One case had a mass of small hypertrophies or polyps around the ostium. When these were removed and the ostium cleared, the collection of secretion in the antrum almost immediately commenced to diminish. In the other case there were no polyps but the middle turbinate was hypertrophied and thickened seeming to close the ostium. After crushing and fracturing the middle turbinate it was pushed out away from the ostium and even then it was difficult to penetrate through into the

antrum. However, a permanent opening was obtained and the case showed marked improvement.

The results were so good in these cases, that I think this is a point which should be given more consideration. From a mechanical standpoint we know that a vessel with only one small opening in the bottom does not empty itself easily because of the vacuum established in the top, but when an opening is made in the top the fluid will more easily flow out the bottom. So with an antrum, if the opening under the inferior turbinate has contracted and the natural opening also closed it seems reasonable to suppose that there will be a greater retention of secretion. We do know that with each expiration and inspiration there is a change in the air pressure in the antrum. This negative and positive pressure would, of course, be modified by the antro-meatal opening under the turbinate. I believe that to permit this change of pressure and relief of vacuum tendency by maintaining the patency of the natural ostium, will be a great aid to the escape of secretions and the antrum will sooner return to a nearly normal condition. This same principle will also apply to our antro-meatal punctures in the acute cases.

NARROWING THE SURGICAL RISK*

W. E. McCrory, M.D., Lake City

Modern surgery no longer tolerates the practice of applying a relatively few tests, determining that the case is one of surgery, and promptly transporting the patient without further preparation, to the operating room where the necessary mechanical work is done. Technical skill at one time paramount in the surgeon should be superseded by clinical and diagnostic ability, and the knowledge of when not to operate as well as when and how.

Rapid strides have been made in the diagnosis of the earlier stages of diseases and the safe application of treatment of these diseases, which if operated in the later stages, are attended by a high mortality. Even greater progress is being made in the rehabilitation of patients, making operative procedures relatively safe, in diseases or stages of diseases formerly considered hopeless risks.

The life and well being of the patient does not depend so much on the isolated function of a diseased organ, as it does upon the harmonious

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

function of the interrelation of all of the organs. Consideration must be given to the disturbance and changed physiology of the whole system, and preparatory and after treatment directed so as to make the psychic change as easy as possible until readjustment is completed. In the light of our present knowledge of physico-chemistry the patient should have the benefit of an attempt at balancing himself against his lesion and if the encounter be too uneven, reinforcements supplied him in the form of the various means of rehabilitation.

Until recently operations upon the aged were approached with considerable fear and trepidation; while with present day considerations of the varying physiology in the aged, proper pre-operative and post-operative care, the patient frequently comes through with fewer complications and less shock than obtains in one many years younger. For example: there is rushed to the surgeon an aged and debilitated patient suffering from a prolonged urinary retention. He has dehydrated himself by fear of the pain of distention, and by pain and urinary frequency has been kept from proper rest; immediate drainage or prostatectomy with sudden relief of pressure on the kidney mucosa, resulting in congestion and often complete suppression of function completes the story: whereas, rest, gradual relief of pressure, increase of fluid intake and bolstering up the circulation and success obtains in prostatectomy with proper hemostasis.

Preoperative treatment begins first, with the education of the laity to seek aid or treatment for conditions which they have long considered trivial or have ignored. This is being cared for in a large measure by the wholesale urge of various organizations for periodic health examinations in apparently healthy individuals. The recurring ulcers of medical treatment can be kept from perforating and possibly developing malignancy; chronic appendices giving rise to various bowel and stomach disturbances can be removed before disastrous acute exacerbations occur; thyroids removed before severe metabolic disturbances and permanently damaged myocardium results, and all accessible cancers are at one time removable.

The transfusion of whole unaltered blood has done as much as any procedure toward lessening the surgical risk. It may be life saving to any of the anemias whether primary or due to the loss of blood from hemorrhage or cachexias. All patients with these conditions should be typed upon entering the hospital in anticipation of an emergency. Transfusion is contraindicated only in

fibrillation, myocardial degeneration and nephritis. A ruptured tubal pregnancy rushed to the operating table and ever so skillfully and speedily operated, may succumb an operation otherwise reasonably safe if accompanied by a transfusion. A badly shocked patient, either traumatic or surgical, often responds quickly to transfusion, application of heat, morphine and moral reassurance and becomes a safe risk. A progressively failing septicemia, especially of staphylococcic or streptococcic origin, often responds miraculously to the repeated transfusions of 200 c.c. of whole blood.

Probably more complications arise from dehydration than from any other cause. Purging the bowel before operation is to be condemned because of dehydration. The flatulence for which it is presumably preventive, comes more often in the purged. All patients should be encouraged to drink as much fluid as possible for two days before operation or large amounts given otherwise, if it cannot be taken by mouth. Glucose solution with or without bicarbonate of soda is an ideal. It may be given palatably with orange juice or gingerale. When the veins play out, fluid is not properly taken by rectum, or by mouth, hypodermoclysis of 2000 c.c. of saline with 1/32 per cent of novocaine as proposed by Bartlett may be given once or twice daily with excellent results.

Acidosis develops either from absence of carbohydrates or because of depression in the carbohydrate metabolism. Whether preoperative or post-operative it is readily relieved by intravenous administration of large quantities of 5 per cent glucose to which 1 c.c. of insulin has been added to each 1000 c.c. of glucose. Obviously, the insulin metabolizes the carbohydrate in a patient already depressed in carbohydrate metabolism.

The routine use of digitalis preoperatively should be condemned but certainly in selected cases a degenerated myocardium may be strengthened up to a safe risk by proper digitalization. Digitalis is of especial value in a weakened myocardium where it is necessary to overload the circulation by the use of large quantities of fluid.

Insulin, and the regular check up on the blood chemistry of diabetics, has reduced the mortality in severe operative conditions in these people to almost that of a normal individual.

Morphine, scopalamine, bromides, barbital, alonal and luminal are all valuable drugs and indispensable in controlling the pain and proper nervous balance of all surgical patients.

For sometime back pediatricians and physiotherapists have found the use of ultra-violet radiations indispensable in the rehabilitation of their little patients and building up of the tuberculous, the various cachexias and anemias. So also, in our high surgical risks, the application of radiant heat should play a big part in the preoperative preparation of patients.

For the patient in shock the application of heat has long been recognized as the most beneficial method of restoration. Shock comes more often from the exposure of abdominal viscera, than from operation in any other part of the body and naturally so, because in no other type of operation is so extensive, and thinly clad a network of capillaries exposed to the air. Attempts have always been made to overcome the effect of cooling the temperature of the system by hot packs, superheated operating rooms, heated tables and various other contrivances, but with relatively poor results. The reason has been demonstrated physiologically by the fact that hot local applications do not materially affect the temperature of the body. Furthermore it has been demonstrated that an ether anesthesia without attendant surgery lowers the temperature of the liver and brain from $1\frac{1}{2}$ to 3 degrees. Physiologists also teach us that the organism as a whole, and especially the liver, which has been demonstrated as the most essential organ in the body not even excluding the brain, decreases its function by 10 per cent with each degree of temperature below normal. Similarly a lowered blood-pressure, from hemorrhage or any cause, lowers the temperature of the brain and nervous system. Given a patient with function lowered to a small percentage of normal by anemia, cachexia, or debilitating disease, and subject him to general anesthesia and operation, especially those operations which expose the liver, physicochemical activity may easily be dropped to the point of death.

Obviously any method which can be devised to keep normal the temperature of the liver and brain during and after operation and thereby keep function up to or above that at the beginning of the operation will reduce shock and the development of conditions complicating lowered function in the organism. At the present time diathermy appears to be the only satisfactory means of attaining this end.

Dr. G. W. Crile, as we have grown to expect, ever points the way to new means of reducing or eliminating shock. He has effectively demonstrated that by the application of one pole of a diathermy apparatus to the lower chest on one

side and the other pole over the dome of the liver, the liver and intervening tissues can be kept to or above the normal temperature, even though the viscera be exposed. Also that they may be made to act as a radiator in rewarming the cooled blood-stream and thereby maintaining the body in a normal physiological state of function. Postoperatively the weak, or badly shocked patient may maintain normal temperature by the continuous application of heat as needed.

Post-operative pneumonia often occurs frequently after abdominal operation as a cause of lowering of the temperature of the blood, and since it is possible by diathermy to increase the temperature and the circulation in the lower lung tissues and thus prevent hypostasis, no doubt we will soon hear, that Crile has eliminated pneumonia from the list of post-operative complications.

Discussion

Dr. William A. Rohlf, Waverly—There are a few points it is perhaps well to emphasize, and one of these is the mental condition of the patient. I believe that one of the factors tending to produce shock is the mental attitude some patients have toward an operation—the proposition of fear. Therefore it is our habit to administer the night before the operation some hypnotic or sedative as a routine, and we believe that this is a real help. I can not emphasize too much the value of preoperative preparation, especially the idea of filling the tissues with fluids. The first statement made by the essayist is the one that has the most meat in it, and that is the necessity of arriving at an accurate diagnosis. We should have a clear indication for operation, and I could not help but think that perhaps in this matter the first essential is education of the doctor's conscience. I cannot add anything to what the Doctor has said relative to the means of diagnosis that we should use—the laboratory, our clinical experience, and, above all, an accurate history, then have a real indication for the operation before it is done. The essayist did not mention the matter of anesthetics. I believe this is a proposition that should be carefully studied. The use of a local anesthetic has narrowed the surgical risk perhaps as much as any other one thing, and I believe we are coming more and more to the use of local anesthesia. I am glad the essayist specifically mentioned prostatectomy. As these cases occur in the aged, it seems to me they are entitled to all the consideration possible and we should make blood tests, urinary tests, etc., but even with the laboratory furnishing us with the findings obtained from accurate tests, we ought to size up the patient, and many times it seems to me that even though the laboratory findings are not what we would like them to be, if the patient impresses us as one who is vigorous and

his appearance is that of good health, and if observation leads us to believe that his resistance is really greater than his years would perhaps seem to indicate, then that patient is a fairly safe risk. I do not believe that in these cases we should depend altogether on the laboratory findings. Then again, even though the laboratory findings seem to be favorable, if the patient impresses me in a general way that he is

balancing the risk of doing a radical operation. I have noticed is that we are apt to apply the patient after the operation is completed that the surgeon should keep him for weeks and even months through giving him personal attention or turning him over to the internist who will look after his needs. In that way we will have better surgical results.

Dr. Emil C. Junger, Soldier—I enjoyed Dr. McCrary's paper, and am sure that the change that has come over the profession in the last twenty-five years means a great deal to our patients. "Narrowing the surgical risk" has been pretty thoroughly covered and it is evident that Dr. McCrary has given the subject proper study. Dr. Rohlf mentioned education of conscience on the part of the operator as essential in arriving at an accurate diagnosis. To treat the patient as an individual rather than as just one of so many patients, certainly has a great deal to do with the outcome of the case. A large institution as a rule does not possess much conscience, you cannot put any conscience into an institution. Conscience is an individual proposition. I think we small fellows all over the country frequently secure much better results than do those carrying on their work in a large institution. Yesterday we were advised to keep the patient in the hospital for two or three days or a week in order that he may get used to it and not be scared all the time. We do not have to do that in the country. For instance, in my town I know all the people there and they know me. If an operation is necessary I instruct the patient to come in in the morning, not the night or day before, but to get up early in the morning, have a little breakfast and then come in. I know those people and their idiosyncrasies and weaknesses, and they are all ready when they come in. We give them an enema perhaps, give them a hypo of H.M.C. or a little morphin, and many patients will walk to the operating table "The fear", that thing that causes acidosis and knocks nerve control, is all done away with. The H.M.C. does away with the idea that scares them and they are all right, we do not have any trouble. So I think that we who practice in the country have an advantage.

Dr. James W. Osborn, Des Moines—The subject of narrowing the surgical risk might be divided into three phases: The pre-operative preparation, the operative work, and the postoperative care. I want to talk a little about postoperative care. Many of our patients seem to be under the impression that

if they go to the hospital and have a prostate gland removed or a uterus or a tumor or something of that kind, when the wound is healed they ought to be well. We as surgeons are somewhat to blame for that. I have for a good many years told my patients after taking the stitches out that their cure was just now beginning, that the most important part of their recovery was yet to come, and that they must have constant care and supervision for a long period of time in order that recovery may be complete and the most good be derived from our surgical procedure. I believe that that is one part of the narrowing of our surgical risk that has not received as much attention as it should, and I hope that Dr. McCrary's paper will have a marked influence in calling attention to the fact that these people need a lot of attention after the wound is healed.

Dr. McCrary (closing)—In my paper nothing was said in regard to the buffer solution, which Dr. Howell brought out yesterday. I enjoyed his paper and think he has added a great deal to the narrowing of the surgical risk by the use of the buffer solution. Of course we should employ sedatives, as suggested, the night before. Most of our patients are apprehensive about an operation, especially in thyroid cases and some other conditions, therefore the giving of luminal or a sedative of that type for several days before operation I believe to be excellent. Dr. Rohlf mentioned anesthesia. I suggested ether anesthesia, which lowers the temperature of the liver, and, of course, when the temperature of the liver drops the temperature of the brain drops about $1\frac{1}{2}$ to 3 degrees. Nitrous oxid does not affect the temperature of the liver and brain, and, as has been stated, under local anesthesia the temperature does not drop, and therefore shock attends less often.

With reference to Dr. Junger's remarks, we do not all have the supreme confidence of our patients that he possibly has.

CHRONIC NON-SUPPURATIVE OSTEO-MYELITIS, GARRE TYPE*

Report of Case

J. C. SHELLITO, M.D., Independence

Garre of Tübingen first described an osteomyelitis in which there was new bone production "without the occurrence of suppurative and fistulous formation". In an article in the Journal of the American Medical Association for September 22, 1921, S. F. Jones of Denver gives the first case report in this country with a review of the literature, mostly German and French. Since then scattered case reports have appeared. In 1922 Dr. J. C. Bloodgood reported

*Presented before the Midsummer Meeting of the Austin Flint-Cedar Valley Medical Society, Cedar Falls, July 12, 13, 1927.

seven cases, classing the condition under ossifying periostitis and osteitis. He made the point that the lesions may be multiple.

The interest in non-suppurative osteomyelitis is that, though benign, it may be most difficult to distinguish from a sclerosing osteogenic sarcoma. This is illustrated in the following case:

O. S., aged twenty-four, white, male, farmer, came in February 26, 1926, complaining of a hard painful swelling of the upper left tibia.

The family history is not relevant. He had had frequent tonsillitis previous to tonsillectomy at nineteen years of age. He had had a sinus in his chin for four months as the end result of an abscess. He had had no rheumatic fever or joint trouble. He is constipated at times. As far back as he could remember he had to get up once at night to urinate. For six or seven years his urine has been extremely cloudy. He denied venereal. For several weeks he had a generalized itching. He had always done farm work and his habits were good.

Twelve years before, when aged twelve years, he was kicked on the left shin by a horse. Following this there appeared a small nodule which very gradually grew in size. At first the growth was soft so that his garter grooved it. But the density increased until now it is of bony hardness. Growth has been more rapid the past two years and pain has been sufficient to prevent work at times. During the past year, a knob similar to the one with which the first lesion started has developed on the upper third of the right shin and another on the lower end of the right tibia. These nodules are sore and hard. He located still another on the left ischeal tuberosity. He thinks his legs have grown flabby.

Physical examination showed a well developed young man of apparent good health. Pulse, temperature, respiration, weight and blood pressure normal. Marked external squint of left eye. About the lower incisors much pus exuded, the gums greatly retracted. On the front of the chin there was a sinus opening. There was also a scratched vesicular lesion of the trunk and extremities. Scabies.

The anterior aspect of the upper third of the left tibia showed a bulging some four and one-half inches long. The skin over this was normal, except for an excessive perspiration. It was intensely tender to touch over the central portion. Its consistency was that of bone.

The patient pointed out a small projection just above the chief swelling as a beginning of a new lesion. This was tender to heavy pressure.

Similar areas or projections were found at both ends of the right tibia, but the one described on the ischeal tuberosity could not be made out.

The urine showed a trace of albumen and much pus. The rectal examination was negative. The blood showed no increase in white cells or diminution in red cells or hemoglobin. The Wassermann was negative.

X-ray examination, February 26, 1926: A. P. and lateral views of the upper left leg. The upper third of the tibia metaphysis is involved by a new growth of bone of smooth outline and of greater density than normal. There is no evidence of bone destruction. The outline of the shaft shows faintly through the tumor. The new bone is laid down in neither radial or horizontal layers.

A. P. and lateral views of the upper and lower portions of the right tibia show pea sized areas in each end of the bone where there has been bone destruction. About these areas of destruction there is heaping up of new bone.

Films of the chest and pelvis show no abnormality. Films of the lower incisors show a large area of bone destruction about the centrals.

A film of the G. U. tract taken June 2, 1926, was negative. Under the impression that this was probably a low grade osteogenic sarcoma the involved areas were given x-ray treatment during March. No result other than some diminution of pain in the left tibia. Cystoscopy March 29 showed both ureteral openings to be small, or so strictured that catheterization proved impossible then and at two other later attempts.

It was now felt that this must be a benign lesion of the bones, because first, the twelve years' duration; second, the multiplicity of the involved bone areas without evidence of metastasis elsewhere; third, the evidence of pyogenic infection in the jaw and kidneys, and fourth, the radiographic resemblance of the trouble in the upper end of the right tibia to a Brodie's abscess. The lad was hospitalized and under ether a four inch incision was made over the most prominent portion of the large swelling. The skin, subcutaneous tissue, and the periosteum appeared to be normal. A trough was now chiseled out of the hard, dense bone as deep as the center of the tibia. No abscess, cavity or granulation tissue was encountered. No culture was made.

The wound healed by primary intention. The patient returned to work.

Armed with all the data on the case and the tissue removed at the exploration, the writer visited Doctor Bloodgood's laboratory where the

correct diagnosis was made from the x-ray films and confirmed by the tissue examination. The Doctor's note is as follows: "I thought it was ossifying periostitis; although from the x-ray standpoint one could not exclude osteogenic sarcoma. Yet with the section we see bone and bone marrow with nothing suspicious of sarcoma. It was from the sections that I felt we could exclude sarcoma and diagnose osteomyelitis. Again there was also a lesion of the jaw."

Early in May the patient visited a dentist who extracted the lower centrals and curretted a large area of diseased bone. After that he was seen only when he came in for hexylresorcinol. This was given with the hope of benefiting his urinary infection. After July 30 he was lost sight of, until June 23, 1927. Still engaged in farming he does all his own work. He has more or less aching pain in both upper tibias. His urine is as cloudy as ever. The bony growth in his tibias are not increased or diminished. The scar of the exploration was well healed. He promised to return for further attempts at ureteral catheterization.

Summary: A case showing a multiple bone tumor and having multiple foci of infection proved to be a non-suppurative osteomyelitis instead of an osteogenic sarcoma as first assumed from the radiographs.

PROFESSOR FRANKLIN P. MALL

One of the most noted of American scientists was Dr. Franklin P. Mall who was born near Belle Plaine, Iowa, September 28, 1862, and died in 1917.

This distinguished physician contributed much to medical education and his name is well known to students of medicine not only in this country but to the world where the science of medicine is taught. It seems proper that the memory of one who contributed so much to the scientific branches of medicine should receive all the honors that is possible for us to bestow. It is with great pleasure that we have the privilege of publishing the memorial letters received from special students and associates of Dr. Mall. We therefore publish in full letters received from Professor Louis Bernard Schmidt, head of the department of history, Iowa State College, Ames; Professor C. R. Bardeen, dean of the Medical College, University of Wisconsin; and Professor V. C. Vaughan, formerly dean of the Medical School, University of Michigan.

—EDITOR.

Ames, Iowa, October 31, 1927.

Dr. David S. Fairchild, Editor,
Journal of the Iowa State Medical Society,
Clinton, Iowa.

Dear Editor:

I am sending you several letters concerning the late Dr. Franklin P. Mall of Johns Hopkins University which I thought might be of sufficient merit and interest to submit for publication in The Journal of the Iowa State Medical Society.

Dr. Mall was born near Belle Plaine, Iowa, September 28, 1862. He received his preparatory education in public and private schools and entered the Medical School of the University of Michigan from which he graduated in 1883. He did not enter the practice of medicine but continued his medical education, becoming a student at Heidelberg, Leipzig, and Johns Hopkins. He was made a Fellow in Pathology at Johns Hopkins University in 1886 which position he held for two years when he was appointed instructor of pathology at the same institution. He held this position for three years. He was adjunct professor of vertebrate anatomy in Clark University from 1889 to 1892 and professor of anatomy in the University of Chicago from 1892 to 1893. Was appointed professor and head of the department of anatomy in Johns Hopkins University in 1893. He held this position for almost a quarter of a century, until his death in 1917.

Dr. Mall was also director of the department of embryology in the Carnegie Institution of Washington. He held membership in a number of organizations, including National Academy of Sciences, the American Academy of Arts and Sciences, College of Physicians of Philadelphia, the American Association for the Advancement of Science, the Wistar Institute of Anatomy, the American Philosophical Society, the American Society of Physiologists, the American Society of Zoologists, and the Society of American Naturalists. He was president of the Association of American Anatomists from 1905 to 1907, and a trustee of the Marine Biological Laboratory of Woods Hole, Massachusetts. He was the author of many studies in anatomy, and a contributor of numerous papers on anatomical and allied subjects in American and European journals. Mention might also be made of the fact that he was a co-editor and one of the founders of the American Journal of Anatomy and also associate editor of the Journal of Morphology, as well as editor of studies in the Anatomical Laboratory of Johns Hopkins University.

Among the honors which were conferred upon him might be mentioned the honorary degrees of

A.M. and Sc.D. from the University of Michigan; LL.D. from the University of Wisconsin; LL.D. from Washington University of St. Louis. He was invited to attend the 400th anniversary of the founding of the University of Edinburgh, the acceptance of which would have carried with it the honorary degree of LL.D.—an invitation which he declined with the observation he once made to me, in one of his letters, that he “did not care to give up” his “summer’s vacation off the Coast of Maine for so doubtful an honor”.

The letters which I enclose are selected from a collection of letters and papers I have been bringing together during the past eight years. These letters were written with the understanding that they might be used, either in whole or in part, as prudence might dictate.

LOUIS BERNARD SCHMIDT,

Madison, Wisconsin, April 18, 1918.

Mr. L. P. Schmidt,
Department of History,
Iowa State College,
Ames, Iowa.

Dear Mr. Schmidt:

I am glad you are getting materials together for a biography of Dr. Mall. I was intimately associated with Dr. Mall from the time I first took work under him in 1894 until I came to Wisconsin in 1904. Since coming to Wisconsin, I had the privilege of seeing Dr. Mall only occasionally. I corresponded with him from time to time but I have relatively few letters owing chiefly to the fact that I am a poor correspondent.

I always found Dr. Mall prompt in replying to any request for help and always helpful when appealed to. I should not call Dr. Mall a teacher in any usual sense of the word but I should call him an extraordinary educator. It seems to me a teacher is essentially one who feels that he has more or less a command of a subject which he wants to hand over to another person, while an educator endeavors to develop another person's ability to handle the big problems which life presents. The teacher is very apt to be conceited over his own accomplishments in a subject while an educator is usually modest concerning his own achievements in a line of work and acts as a companion to those whom he is helping to educate rather than a master over those whom he is teaching. I do not think that any students failed to gain education under Dr. Mall even those who had no special talent for research and who sometimes felt that they were not “taught” enough under his methods of teaching anatomy.

For those with some ability for research and independent work, Dr. Mall was an extraordinary educator. Personally, I feel that I owe more to him than anyone else with whom I have been thrown and I think most of those trained in anatomy under Dr. Mall feel the same way. He undoubtedly has a great talent as an investigator. He was the kind of an investigator who devoted considerable thought to a subject before undertaking the investigation. Then he tested out the conclusions to which he had come to see if a fruitful line of investigation was likely to be opened up, and if this appeared to be the case he usually continued the investigation, partly in person, partly with fellow workers. He had little patience with perfunctory routine research in which there was little intellectual effort expended and no attempt to reach a fundamental conclusion. Mere piling up of records seemed to him a useless waste of time. On the other hand, a large part of his efforts were devoted to accumulating the valuable material which forms the basis of the embryological collection now in Baltimore and will form the basis for research for many years.

I believe that Dr. Mall is the foremost anatomist which the country has produced. I know no one that ranks with him as an anatomist. He certainly was one of the leading anatomists of the world during the past generation. I doubt that anyone that lived in his time can be rated above him in this field of study. He is largely responsible for the introduction into medical schools of this country of the scientific attitude which now makes the better schools among the most fertile places for scientific research in the country.

Yours very truly,
C. R. BARDEEN.

Ann Arbor, Michigan, July 21, 1920.
Professor L. B. Schmidt,
Iowa State College,
Ames, Iowa.

My Dear Professor:

I am glad that you are preparing a biography of Professor Franklin P. Mall, formerly head of the department of anatomy in Johns Hopkins University. Doctor Mall was one of the great scientific men of his generation. I remember well when he came to the University of Michigan as a freshman medical student in 1880. I watched closely his progress and appreciated his intelligence during the three years of his medical course. He was always intelligent, diligent, thoughtful, standing in the front rank in every

department. I think there can be no question about Professor Mall's standing, either as a teacher or as an investigator. It was supposed that scientific anatomy had been thoroughly covered when he made discoveries which had lain under the eyes of investigators for many years. There is no question in my mind that Professor Mall was one of the most eminent anatomists of his time.

Personally, I was extremely fond of him. After he became professor at Johns Hopkins University, I frequently consulted with him concerning the filling of certain chairs in the University of Michigan, his alma mater, and he always gave me good, sound, and straightforward advice and was always willing to help me.

Mall graduated at the University of Michigan in 1883. The class took their diplomas in June that year, being the first three-year class with nine months in each session to graduate. In March, 1883, Dr. Henry Sewall came from Johns Hopkins here to teach physiology. Recognizing the fact that the seniors had not had any scientific work in physiology, the faculty asked Dr. Sewall to give two lectures a week from the time he came until the close of the session in June. After Dr. Sewall had given these lectures to the seniors, he came to me and sought advice as to what kind of an examination he should give, recognizing the fact that the seniors had had a wholly inadequate course. We talked over the matter and it was decided that I should send to his room three of the best students in the class, that he should talk informally with them, ascertain in a general way their knowledge of physiology, and fit the examination to suit the case.

I sent to Dr. Sewall's room Frank Mall, Will Mayo, and Walter Courtney. Doctor Sewall soon found that these young men, excellent students as they were, knew but little physiology, and he told them so. Moreover, he proceeded to tell them that neither one of them would ever make a success in medicine or in a science. Frank Mall became one of the greatest anatomists in his time and occupied the professorship of that subject in Johns Hopkins University. Will Mayo is one of the greatest surgeons of his time, and Walter Courtney has just finished a most honorable record with the Northern Pacific and won recognition as one of the ablest railroad surgeons in the country. Such are the opinions that teachers are likely to form of their students.

Very truly yours,

V. C. VAUGHAN.

IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines
Commissioner, State Department of Health

PREVALENCE OF COMMUNICABLE DISEASES

During the month ending February 15, the communicable diseases which have been chiefly prevalent in Iowa are scarlet fever, measles, smallpox, chickenpox and diphtheria. There were also a number of cases of mumps and whooping cough and a few of cerebrospinal meningitis and poliomyelitis.

Measles—This disease is appearing chiefly in the western portion of the state. The eastern portion was visited by an extensive epidemic last year. Nineteen twenty-seven was a "measles" year in the greater portion of Iowa. It was directly responsible for 210 deaths. The more extensive epidemics of this disease occur only about every three years. There should accordingly be comparatively few cases in the eastern tier of counties this year. On the other hand those communities that had but few cases last year may expect to have more this year.

I wonder if there are any places in Iowa where "convalescent" serum is being used as a prophylactic.

It appears to be quite efficacious in either preventing the occurrence of the disease or modifying the symptoms. Park and Freeman in their work, withdrew the convalescent blood between the ninth and twenty-first day after the temperature had become normal. In certain instances, blood was withdrawn as late as five months after recovery. They recommend the injection of 6 c.c. of convalescent serum or plasma into children under three years of age and from 6 c.c. to 10 c.c. for children over three years of age who have been exposed to measles five days (or less) previously.

Smallpox continues to prevail chiefly in the southeastern portion of the state. Fortunately it is of a mild type. Last year there were more than a thousand cases of the disease in Iowa—and but two deaths. There should of course be no let up in the urging of persons to be protected by vaccination.

Physicians have, for the most part, given up the cross scratching method of vaccinating, since it is more prone to produce excessively "sore" arms. The simple scratch, chisel or multiple puncture methods are just as efficacious and can be done with entire safety.

Certain antivaccinationists are perennially objecting to "compulsory" vaccination. The "compulsory feature" is the "straw" man which they are fighting in order to find some semblance of an opponent.

There is no compulsory vaccination in Iowa. School boards and local boards of health have the power of excluding from school all pupils unless adequately vaccinated, when a situation exists that threatens the health of the school children. There are some who interpret "situation" as an existing epidemic. We no longer wait for epidemics to develop. Any school board or local board of health can apply the rule of the State Department of Health when an epidemic threatens to appear.

DIPHTHERIA IMMUNIZATION CAMPAIGN

The campaign for the eradication of diphtheria by immunization with toxin-antitoxin is making rapid progress.

The following two notes represent the attitude of many of the county medical societies:

"Jefferson County Medical Society has put itself on record as sponsoring a general immunization program for school children against diphtheria and has offered its services to make such a program possible for the whole county."

"The secretary of the Worth County Medical Society states that he has already one community in his county ready for the toxin-antitoxin treatments against diphtheria and he and other members of the county society are going out to include in the program every rural and urban school in the county."

Sioux City continues to be the bright spot in Iowa, or for that matter in the United States, as far as diphtheria is concerned.

The health commissioner of Sioux City, W. D. Hayes, announces that as a result of carrying out the program of diphtheria immunization in that city, (which was begun in 1923), the incidence of the disease has been so reduced that not a single death from diphtheria of a resident of the city occurred in 1927. One death did occur, but it was in a child brought in to the city from the country for treatment in a city hospital. The total number of cases of the disease for the year was twenty-six and only one of these has occurred since July. Dr. Hayes estimates that if the same rates for diphtheria prevailed now as did before the program was carried out, there would have been at least 300 cases and twenty deaths from diphtheria during the year.

In Sioux City there is wonderfully effective cooperation between the practicing physicians and the health officer, who is not engaged in practice.

About 95 per cent of the school population were immunized about three years ago. Two years ago the preschool population was almost completely immunized. The plan now is to immunize every baby as soon as he becomes six months of age.

Anyone who doubts the efficiency of the diphtheria immunization program should take a look at a map of the state in the department of health. The following significant figures were taken from the data on that map.

Places where fairly general diphtheria immunizing programs were completed before or early in 1927

Counties	Cases	Deaths
Osceola—Pop. 10,031	0	0
Plymouth—Pop. 23,729	1	0
Dickinson—Pop. 10,736	0	0
Dallas—Pop. 25,340	2	0

Cities	Cases	Deaths
Sioux City (Woodbury)—Pop. 76,411	26	0*
Clinton (Clinton)—Pop. 26,436	16	1
Total—Pop. 172,683	45	1

*One death occurred in Sioux City, but the case came to city for treatment and died there.

Places where no general immunizing program was completed before or early in 1927

Counties	Cases	Deaths
Humboldt—Pop. 12,701	9	1
Johnson—Pop. 29,862	249	8
Delaware—Pop. 17,927	16	1
Tama—Pop. 22,065	18	2

Cities	Cases	Deaths
Council Bluffs (Pottawattamie)—Pop. 39,795	104	7
Davenport (Scott)—Pop. 52,469	29	7
Total—Pop. 175,819	425	26

In 1927 there were 114 deaths from diphtheria in Iowa. That was just 114 too many. If it is the wish of the physicians of the state to see our slogan, "No Diphtheria in Iowa by 1930", come true, it can be done. If it is done, it will be by the practically universal immunization of the children of the state with toxin-antitoxin.

Have the children of the "families" of your practice been immunized?

CHILDREN CAN BE EXCLUDED FROM SCHOOL UNLESS VACCINATED AGAINST SMALLPOX

The rules (1927) of the State Department of Health regarding communicable diseases have been revised so as to make more clear the powers of school boards and local boards of health. It is suggested that the following revised rules be

inserted in each physician's copy of the Rules and Regulations: "Revision of Rules and Regulations pertaining to smallpox, page 42, Contacts in the School, paragraphs 2 and 3.

"2. School boards *can* exclude from school all pupils unless vaccinated or revaccinated when a situation exists that threatens the health of the school children.

"3. Local boards of health *can* exclude from school and its work all pupils, teachers, and attendants unless vaccinated or revaccinated when the health situation in the school is a menace to the public."

TIME TO BECOME ACTIVELY IMMUNIZED AGAINST CERTAIN DISEASES

The State Board of Health recently adopted a resolution embodying the following recommendations:

1. Diphtheria—That every child in the state be protected against diphtheria by means of toxin-antitoxin immunization as soon as they have attained the age of six months.

2. Smallpox—That all children be vaccinated against smallpox during the first year of life and preferably during the first six months.

3. Scarlet fever—That children who have not previously been protected against scarlet fever either by active immunization or by an attack of the disease be immunized with scarlet fever toxin whenever that disease is prevalent in the community.

4. Typhoid fever—Since inoculation by vaccination gives a high degree of protection against typhoid fever, the State Board of Health recommends that vaccination be practiced: (a) In all communities where typhoid persists or is endemic. (b) In all communities where an epidemic is occurring or is thought likely to occur. (c) By all members and contacts of a family where a case exists. (d) By vacationists and all others who travel. (e) By all physicians, nurses, and others brought into close contact with typhoid fever cases.

5. Rabies—That all persons bitten by or otherwise thought to have become infected by contact with a rabid animal should take antirabic treatment.

It will be noted that no reference is made to antirabic or other sera. These are used chiefly for treatment. The Board and Department of Health aim to avoid everything that savors of "state medicine" in the sense that such is regarded by and objectionable to practicing physicians.

MEDICAL DEPARTMENT—IOWA STATE LIBRARY

Historical Building, Des Moines, Iowa

Literature is available to all physicians, dentists, nurses, veterinarians, public health workers, and other professions in the state.

Bibliographical work on special subjects will be prepared.

Books and bound journals not available in the Iowa State Medical Library will be borrowed from the library of the surgeon general or the John Crerar Library.

Current journals will be sent to patrons regularly on request.

Period of loan on current journals is one week.

Period of loan on books and journals except current journals is two weeks with the privilege of renewal.

Borrowers are expected to pay postage on all loans. Material lost by borrowers must be replaced.

Patrons who fail to return literature promptly will lose their borrowing privilege.

Medical literature which physicians wish to contribute from their own libraries will be gratefully accepted.

Please file for reference all announcements and lists received from the library. You will eventually receive lists of the entire text-book accessions.

TRAVEL STUDY CLUB OF AMERICAN PHYSICIANS

A modified itinerary of our 1928 Study Tour has been planned in order to accommodate those who wish to omit the visit to Spain and to see the Central European countries only. This second group would sail from New York to Cherbourg on the S. S. Penland, on July 14—two weeks after the first group—spend three days in Paris, join the main party at Nice, and continue with them.

The expense of this alternate tour would be \$850, and thus the tour would be about \$200 less expensive and also two weeks shorter. The arrangement will undoubtedly be welcomed by some of our fellow travelers, past and prospective, and an early reply from those interested is herewith requested. Ocean accommodations for the main traveling season are already getting scarce and these additional reservations cannot be held beyond the next four weeks.

In reference to our visit to the clinical centers of Central Europe, assurances have been received from the university authorities of Vienna, Budapest, Munich and Berlin that clinical facilities will be arranged in accordance with the desires of the party. Information, printed in English, about the post-graduate work in these centers has also been received at this office and will be mailed out upon request.

Richard Kovacs, Sec'y.

The Journal of the Iowa State Medical Society

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OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVIII March, 1928 No. 3

THE PROBLEM OF MEDICAL EDUCATION

In Iowa the problem of the country doctor is not a very serious one. Dr. Amador, in a paper read before the 1927 session of the Iowa State Medical Society, reviewed in a masterly way the Iowa problem so far as it is a problem. It did not appear that the presentation was carefully followed, as in the discussion Dr. Amador was made to say things he did not mean. He did not say or mean to say, that the country doctor was only fitted to direct a "first aid station", but, on the contrary, fit himself to treat all cases in accordance with modern methods that could be properly treated in an environment without a properly equipped hospital. I am quite certain that some of the doctors who criticized Dr. Amador's paper would not consent to undertake a serious and dangerous operation in a private home without trained assistants, unless it was a life saving emergency case. One of the things to be most commended was the frank confession of his own limitations. Dr. Amador would refer cases he could not properly treat with a conscientious regard to the patient's interests. If you will read Dr. Amador's paper and the discussion, you will find them far apart.

The question of medical education and the country doctor is not particularly an Iowa problem, but in discussing the question we cannot be indifferent to the subject as of vital importance to the profession at large. It is not a medical

question only, for there is as much, and perhaps more, discussion and criticism in university circles as to education in general as there is in medical circles in regard to medical education. It must seem rather strange to the occasional thinker that there should be so wide a range of difference of opinion on a subject as old as education, not for the profession only, but for the people generally. The difference of opinion rests upon the individual or group conception of the problem to be solved. Never before has there been such deep interest in education as at the present day. This can be easily understood if we consider the complexity of our civilization and the need of the best trained brains possible in the conduct of our affairs. We no longer hear business men say that they hesitate to employ college bred men but prefer to take men from the public schools without a college training. It was asserted that the college training unfits young men to acquire capable salesmanship and a smart understanding of good business. This was when the ethics of business was different from what it now or at least is fast approaching. The age of "wooden nutmegs" and "Yankee notions" is gone. Fifty years ago a college training was for the young man who contemplated entering upon one of the so-called learned professions, when the professional man or the college professor wore a tall hat and a Prince Albert coat. But these distinctions have disappeared, and the business man, or the industrial, who hopes to advance, feels the need of a college training as much as the minister, doctor or lawyer. It is no longer that the college failure may become the business man or manager of a factory or a successful farmer, and the business man who succeeded with the handicap of an untrained mind is not slow in providing his sons with the education he so sadly missed, for he realizes that now our affairs are too complex for any but the best trained minds to grasp. He realizes the fact that the standard education of fifty years ago does not fit the requirements of today, and so the colleges have vastly increased the scope of education and equipment and this has come about with such rapidity that we have not come to an agreement as to what a standard of education should be.

In our own field fifty years ago, a course of medical training of two courses of medical lectures of sixteen weeks, including three years in a doctor's office, was sufficient for a practitioner of medicine. The immense advancement in scientific knowledge has so changed our conception of a medical education that we have not been

able to determine how far we shall go or when we shall stop, and our medical educators find it difficult to reach an agreement as to what our standards shall be. The fundamental idea is to determine what shall be the best for the public we serve. Unless we are to have some form of state medicine, certain secondary ideas must have some force. The practice of medicine must be attractive enough, and the rewards must be sufficient to induce desirable young men to enter the profession. Then there are the various branches of practice and the environment to be taken into account, and shall, without regard to branch of service or environment the course of training be the same? This is probably the most difficult question that confronts the profession.

Dr. Amador has opened up the question of environment. Is Dr. Amador justifiable in his environment to undertake stomach, gall-bladder or general abdominal operations, or is he to be criticised for a frank statement of the fact? Dr. Amador elects the life of a country doctor as offering the greatest attractions, as it was in the older days. It is admitted that men thus situated should know a good deal about such cases and such operations, even if he did not practice them, but may not have expert knowledge. The principle involved is not what Dr. Amador does, but should any one more ambitious and more enterprising pursue a different course, or should this be the standard of conduct for physicians similarly situated? Dr. Amador has a right to select his own location and adopt a practice to his liking, but should he undertake to say what others should do who practice in similar environment for other reasons than a deliberate choice? He does not undertake to say that a country doctor situated as he is does not need to know much about these things, or advise patients that can be treated in the country or small village home, to go elsewhere, because he is too indifferent to employ modern means of treatment.

We thus refer to Dr. Amador's paper because two principles are involved in the discussion of medical education. The question of medical education rests upon what a doctor should know who undertakes to practice medicine and what is essential in a cultural way for a successful and dignified practice.

The second question: What influence, if any, should environment exert on practice, including the ethics of difficult and complex diagnosis and operative treatment?

These questions are discussed in the prints of all classes, and so often that we feel it an obligation to review some of them.

We find a suggestion by Dr. Appel published in Boston Medical and Surgical Journal for January 5, 1928. Dr. Appel believes that the formal lectures should close at the end of the third year and "spend the fourth year in the hospital as an intern on a rotating service of medicine, surgery, obstetrics, pediatrics and laboratory. After having finished this year in the hospital, let the intern return to the medical school for his final examinations before receiving his degree. A fifth year could be devoted to a specialty. There would be a saving of a year with results equally good and would relieve our committees on medical education of the criticism of attempting to lower the standards.

PROBLEMS IN MEDICINE

There seems to be no end to medical problems, we have from time to time published some of them. Many are imaginary, not more serious or more difficult than other men's problems. We sometimes think we are more sensitive than other people.

From California—most favored of all—comes a word from Dr. Perry T. Phillips, president of the California State Medical Society, who finds that medical practice is divided into three parts, Medical Economics, Medical Science and Medical Art.

Dr. Phillips contents himself with a consideration of Medical Economics, apparently the most difficult and most uncertain. In an earlier day Medical Art occupied the attention of the medical practitioner. He sought to find remedies to cure or relieve his patient, but now the problem is more complicated and what it will amount to no one knows. The first question is "organization not only an advantage but a necessity". We are informed that there are 7,454 licensed physicians and surgeons in California and only 4,273 who are members of the State Association. We are not confronted by the question of "good business", but by the influence which an united profession would have upon the public in promoting medical, social and public welfare.

We recognize in the medical profession the foundation of public health activities and that the loss of so large a proportion of the medical profession who are inclined to say "they are not worth while" is serious. In all the states the problem of non-membership is practically the same. We have tried various methods of bringing eligible members of the profession into the county societies with more or less success. A few societies report 100 per cent members, but

not many. The responsibility for this failure is sometimes placed on the councilors, sometimes on the indifference of the county societies themselves. To excite a greater interest Dr. Phillips suggests that a greater number of papers and discussions before county societies be published in the State Medical Journal. He also suggests that the names of members be published in the local papers at the societies' expense. He is of the opinion that the local public would take notice and place an unfavorable estimate on the physicians who failed to associate themselves with their fellows. These suggestions would seem to have some merit. But it is doubtful if doctors influenced only by selfish or pecuniary motives make valuable members.

At the Conference of County Secretaries recently held in Des Moines there were some expressions of opinion to the effect that in some sections of the state where the county societies are small, district organizations could be formed with the effect of creating a greater interest in medical meetings. It was suggested by Dr. Kenefick that the geographical organizations of congressional districts which was made some years ago for political advantages was inconvenient for medical organization. At the time of the adoption of the reorganization plan it was recommended that a different districting be adopted but the congressional division was logical. Under the present plan of deputy councilors it seems that the councilors could overcome the difficulty by appointing assistants in these large and awkwardly constituted districts. We trust that Dr. Kenefick in his presidential address will review this subject and formulate a definite plan.

We have rather successfully solved most of the serious problems that have confronted the Iowa profession, perhaps not in a brilliant or striking manner but in a plain matter of fact way that reflects credit on our leaders. Our simple country life has saved us many of the disquieting experiences of states having great cities. We believe that by following out the plans now under consideration we shall solve as far as may be the non-membership problem.

Storm Lake, Iowa, January 23, 1928.

To the Editor of the Iowa State Medical Journal:

An article in the January issue of the Iowa State Medical Journal entitled "The Passing of the Country Doctor" merits consideration.

The work of the modern doctor centers around the hospital. The cities are oversupplied with hospitals to such an extent that there is some bitterness between them as to which hospital shall get the

popular doctor's business. On the other hand the country has no hospitals. Most of the county seats in Iowa have no hospitals. There are many counties in Iowa without a hospital within their limits.

Many of the smaller cities which have a hospital are dependent therefor on private hospitals owned and operated by a doctor or a group of doctors for their own benefit and are not open to other practitioners nor to the general public.

The great leaders of the profession are advocates of large hospitals, many stories high, with a numerous and distinguished staff and look with suspicion on the small hospital. However in the writer's opinion a small hospital in every moderate sized town will easily distribute the young competent men out over the rural communities.

The town of Alta in this county has for about twenty years owned and operated a public city hospital. The town has less than one thousand inhabitants but its doctors are happy and competent and attend to the medical and surgical needs of the community in a highly efficient manner and at a cost adequate for their services and not ruinous to the patient.

This hospital belongs to no church or lodge but to all the people and if you want to be unpopular in Alta visit the town and try knocking the hospital.

J. H. O'Donoghue, M.D.

CONFERENCE ON RHEUMATIC DISEASES

A Conference on Rheumatic Diseases is to be held at Bath, England, on Thursday and Friday, May 10 and 11, 1928. Sir George Newman, chief medical officer of the British Ministry of Health, has kindly consented to act as president of the Conference. There will be three sessions: (1) Social Aspects, presided over by Lord Dawson of Penn, physician to H. M. King George; (2) Causation, presided over by Sir Humphrey Rolleston, (Regius professor of physic, University of Cambridge), and (3) Treatment, presided over by Sir E. Farquhar Buzzard, (Regius professor of medicine, University of Oxford). The local honorable medical secretary is Dr. Vincent Coates, 10, Circus, Bath, England.

HEBREW MEDICAL JOURNAL

"The Hebrew Physician", (HaRofeh HoIvree), the only medical journal published outside of Palestine which is written in Hebrew, has just made its initial appearance.

This journal is under the editorship of Dr. Moses Einhorn and Dr. A. Goldenstein. It contains articles on general medical subjects and has a special section devoted to new Hebrew medical terminology. All physicians who are interested in this journal are requested to communicate with the editors, addressing them care "The Hebrew Physician", 286 West 86th street, New York City.

SPECIAL ANNOUNCEMENT

The thirteenth annual convention of the Catholic Hospital Association of the United States and Canada and the second annual Hospital Clinical Congress of North America will be held in the Cincinnati Music Hall, Cincinnati, Ohio, June 18 to 22, inclusive, 1928. The fourth annual convention of the International Guild of Nurses will be held at the same time, in the same building, at night meetings.

This convention and congress will be one of the largest and most important hospital meetings of the year, and will comprise general scientific meetings, special clinics or demonstrations of hospital departments, and three hundred special commercial and educational exhibits. Outstanding authorities in medicine, surgery, pathology, nursing, dietetics and hospital administration, architecture and engineering will lecture and demonstrate in specially planned clinics representing the various departments of the modern hospital. A professional program of the highest interest and value is now being formulated, and all persons interested in medical and hospital service are cordially invited to attend. Further information may be obtained from John R. Hughes, M.D., dean of the College of Hospital Administration, Marquette University, Milwaukee, Wisconsin, who is general chairman of the convention and Congress.

EARLY DIAGNOSIS CAMPAIGN

"Go to your doctor"—these four words tell the story of a nation wide educational and publicity campaign to be conducted in March by the National Tuberculosis Association, the state tuberculosis associations and local health organizations simultaneously throughout the country.

The object is to get people to consult their family physicians in time to discover or prevent such major diseases as tuberculosis.

The methods comprise the use of posters, car cards, window displays, posterettes, moving picture films, speeches, sermons, newspaper publicity, a four page pamphlet "Let your doctor decide" and other educational processes. Bill board space will be donated by the Outdoor Advertising Association of America and local concerns.

The cost will be mainly defrayed by Christmas seal funds.

The movement will be known as the early diagnosis campaign. The cooperation and approval of state and county medical societies is to be asked.

The March issue of *The Campaign*, published jointly by the Iowa Tuberculosis Association and the Board of Control of State Institutions, is the early diagnosis number containing articles on the diagnosis of tuberculosis and heart disease and on periodic medical examinations by Dr. Walter L. Bierring, Dr. H. V. Scarborough, Dr. Fred Smith and Dr. Horace M. Korn. Any physician may ob-

tain an extra copy of *The Campaign* by writings to the Iowa Tuberculosis Association.

SPANISH EDITION OF UNITED STATES PHARMACOPOEIA

It will doubtless be of interest to the medical and pharmaceutical public to know that the Spanish edition of the United States Pharmacopoeia, tenth revision (*Farmacopea de los Estados Unidos de America*, decima revision decenal) has recently been published by the board of trustees of the United States Pharmacopoeial Convention and is obtainable from the agent, The International Trade Papers, Incorporated, 2 West 45th street, New York City, New York. The price is \$6.00.

The translation has been made by a committee from the University of Havana, Havana, Cuba, with the cooperation of Dr. Jose Guillermo Diaz, who prepared and translated the U. S. P. VIII and the U. S. P. IX into Spanish. The translating committee consisted of Dr. G. Garcia Morales, chairman; Dr. Mesa de Ponce, secretary; Dr. Sarah Bustillo and Dr. Rosa T. Lagomasino.

The United States Pharmacopoeia has been adopted as the official Pharmacopoeia for the Republic of Cuba and is extensively used throughout Central and South America.

William B. Day,

Secretary, Board of Trustees,

United States Pharmacopoeial Convention.

UNITED STATES CIVIL SERVICE EXAMINATIONS

The United States Civil Service Commission announces the following open competitive examinations:

Social Worker (Psychiatric), \$1,860

Junior Social Worker, \$1,680

Applications for social worker (psychiatric) and junior social worker will be rated as received by the Civil Service Commission at Washington, D. C., until June 30.

The examinations are to fill vacancies in the Veterans' Bureau, and in positions requiring similar qualifications throughout the United States.

The entrance salaries are indicated above. A probationary period of six months is required; advancement after that depends upon individual efficiency, increased usefulness, and the occurrence of vacancies in higher positions.

The duties of these positions will be to investigate history and environmental conditions of patients; to analyze and submit data to the physician to aid him in arriving at a definite diagnosis and in outlining a course of treatment; to consider, report upon, and treat the social environment to which a convalescent patient may go or be expected to go.

Competitors will not be required to report for examination at any place, but will be rated on their

education, training, and experience; and a thesis or publications to be submitted with the application.

Full information may be obtained from the United States Civil Service Commission at Washington, D. C., or the secretary of the United States civil service board of examiners at the post office or customhouse in any city.

SOCIETY PROCEEDINGS

Polk County Medical Society

The program committee have planned four clinical sessions for the Polk County Medical Society during the ensuing year. The clinical material is to be furnished by the staffs of the several hospitals in the city from the patients in the hospitals.

The first of these clinics was held at the Hotel Fort Des Moines, January 31, 1928. Dr. R. H. Parker, the president of the society, presided. The clinic was conducted by members of the staff of the Broadlawns General Hospital under the direction of Dr. J. S. Weingart, president of the staff.

1. Dr. H. B. Henry presented a patient with multiple sclerosis.

2. Dr. J. S. Weingart presented a case of possible carcinoma of the lung and pseudo-bulbar palsy.

3. Dr. J. E. Kessell presented a case of infectious mononucleosis.

4. Dr. W. W. Bond presented a case of complete heart block of arteriosclerotic etiology with Stokes-Adams syndrome.

5. Dr. Eugene Wolcott presented cases of primary synovial tuberculosis, achondroma of knee joint and osteosarcoma of tibia.

6. Dr. Joseph Brown presented a case of an encephalic child still born to a para 10 mother.

7. Dr. C. W. Losh presented a case of bilateral duplication of kidneys and ureters.

8. Cases describing the various types of red eyes were then presented. Iritis—Dr. H. I. McPherrin. Keratitis—Dr. J. H. Tait. Schleritis—Dr. C. P. Cook. Traumatic—Dr. Grace Doane. Dr. H. J. McCoy presented a case of primary acute inflammatory glaucoma.

9. Dr. J. S. Weingart presented a case of pernicious anemia with secondary combined cord degeneration.

10. Dr. F. W. Fordyce presented a case of osteomyelitis of the ribs with empyema.

11. Dr. A. P. Stoner presented a case of permanent fecal fistula following appendectomy, possibly due to tuberculosis.

12. Dr. J. S. Weingart then concluded the program with a case of unresolved pneumonia.

The meeting was well attended, both by the members of the local society and by visitors from the counties close by. Much interesting discussion accompanied the presentation of each case.

A cordial invitation is extended to any physician who wishes to attend the three other clinics to be

held this year. They will be on the following dates: March 27, September 25 and November 27.

Following this a short business meeting was held. The application of Dr. J. T. McBride for membership was then presented to the society, having been favorably passed by the board of censors. Dr. Blum moved that the rules be suspended and Dr. McBride be elected to membership. Duly seconded and carried.

The application of Dr. Wm. M. Sproul was presented to the society and referred to the board of censors.

The secretary then read a resolution on the death of Dr. H. H. Littlefield. It was moved that these resolutions be adopted. Duly seconded and unanimously carried.

The secretary then read a resolution on the death of Dr. A. L. Peacock and moved its adoption and that a copy be placed in the minutes and also one sent to the family. Duly seconded and unanimously carried.

The secretary read a letter from the Iowa Tuberculosis Association in reference to the early diagnosis campaign, which is to be put on in March by that association. Dr. A. D. McKinley then read a resolution commending and approving this resolution and moved its adoption. Duly seconded and carried.

Meeting adjourned.

L. K. Meredith, Sec'y.

Audubon County Medical Society

The Audubon County Medical Society met Thursday, December 15, 1927. The following officers were elected for 1928:

President, Dr. R. H. Payne; vice-president, Dr. Peter Soe, Kimballton; secretary-treasurer, Dr. J. M. Fulton, Audubon; delegate to State Society, Dr. B. F. Child, Audubon; alternate delegate, Dr. L. E. Jensen, Audubon.

Carroll County Medical Society

The Carroll County Medical Society held its annual meeting Wednesday evening, December 14, at St. Anthony's Hospital. A banquet was served at 6:30 by the Sisters of the Hospital.

Dr. W. M. Shirley read a paper on the Thyroid.

The following members were elected officers for 1928: President, Dr. T. W. Chain, Dedham; vice-president, Dr. D. H. Hopkins; secretary, Dr. Walter Anneberg; censors, Dr. H. R. Pascoe, Dr. A. J. Beger and Dr. A. Kessler.

Cerro Gordo County Medical Society

The Cerro Gordo County Medical Society monthly meeting was held January 17, 1928.

Installation of officers: Dr. W. E. Long, president; Dr. C. P. Smith, vice-president; Dr. C. M. Franchere, secretary-treasurer.

Business meeting was held followed by interesting papers on Focal Infections in Their Relation to the

Eye, Ear, Nose and Throat, by Dr. S. A. O'Brien and Dr. C. E. Chenoweth, of Mason City.

C. M. Franchen, Sec'y.

Clinton County Medical Society

The Clinton County Medical Society held its annual meeting December 22, 1927. Officers elected for 1928 were as follows:

President, Dr. J. C. Langan, Clinton; vice-president, Dr. B. C. Knudson, Clinton; secretary-treasurer, Dr. C. W. Brown, Clinton; censor, Dr. H. E. Martin; delegate to State Society, Dr. F. O. Kershner, Clinton; alternate delegate, Dr. Kurt Jaenicke.

Crawford County Medical Society

The Crawford County Medical Society met in Denison, Monday, January 23, at Hotel Denison. Dr. M. E. O'Keefe of Council Bluffs read a paper on Goiter.

Dr. J. V. Treynor presented a paper on Mastoid in Children.

Dr. Carl R. Werndorff, also of Council Bluffs, presented a discussion on Sciatic Diseases.

It was proposed to organize a joint medical society to include Crawford, Carroll, Shelby, Harrison and Pottawattamie counties. The movement was heartily endorsed and steps were taken to perfect an organization.

Fayette County Medical Society

The annual session of the Fayette County Medical Society was held at Clermont, December 7, 1927. Officers elected: President, Dr. G. N. Wassam, Oelwein; vice-president, Dr. C. M. Hazard, Arlington; secretary-treasurer, Dr. C. C. Hall, Maynard.

Papers were read by Drs. C. D. Mercer, West Union; J. A. Cahill, Volga City, and C. C. Hall, Maynard.

Green County Medical Society

Green County Medical Society held its annual meeting at Hotel Lincoln, Jefferson, Wednesday, January 25. At the close of the banquet, to which the wives of members were invited, the society convened for the election of officers.

President: Dr. John Black, Jefferson; vice-president, Dr. S. H. Arthur, Scranton; secretary and treasurer, Dr. Richard Tricke, Jefferson.

Dr. E. E. Morton of Des Moines gave an address on Cancer of the Stomach.

Hancock-Winnebago County Medical Society

The Hancock-Winnebago County Medical Society met at the Legion hall at Britt, Friday morning, December 23, 1927. Officers elected for 1928 were:

President, Dr. E. A. Couper of Britt; vice-president, Dr. C. T. Grattige of Britt; secretary, Dr. G. E. Snearley of Goodell; censors, Dr. Thos. Quirl of Forest City and Dr. A. L. Judd of Kanawha.

Dr. T. E. Davison of Mason City read a paper on Goiter.

Hardin County Medical Society

The first of the bi-monthly meetings of the Hardin County Medical Society for 1928 was held at Iowa Falls on Thursday evening, January 12. Fourteen members of the society were present. Following dinner at the Woods Hotel the society was addressed by Dr. J. F. Gerken of University of Iowa extension department, who has been holding Sheppard-Towner Clinics in different parts of the county. The subject was Infant Feeding and was ably presented both from a scientific and practical angle and was enthusiastically received. The next meeting will be held at Hubbard in March.

W. E. Marsh, Secretary.

Henry County Medical Society

The Henry County Medical Society met at the Harlan Hotel in Mt. Pleasant, December 20, 1927. It appears from the records that a generous invitation was extended to the physicians of the surrounding country and some fifty doctors came together to take part in Dr. Lessener's program. A six o'clock dinner was served followed by an eloquent address of welcome made by the president. Dr. N. F. Miller of Iowa University presented a paper on Lesions of the Cervix illustrated by lantern slides. Dr. Diamond, anesthetist at the State University read a paper on Anesthesia with Special Reference to Athelene as on Anesthesia. The following officers were elected for 1928:

President, Dr. W. A. Sternberg of Mt. Pleasant; vice-president, Dr. G. M. Van Ausdale of New London; secretary-treasurer, Dr. S. W. Huston of Mt. Pleasant; delegate to State Society, Dr. M. C. Mackin; alternate delegate, Dr. O. A. Geeseka of Mt. Pleasant.

Jackson County Medical Society

The annual meeting of the Jackson County Medical Society was held in Maquoketa, December 15, 1927. The following officers were elected:

President, Dr. J. C. Dennison, Bellevue; vice-president, Dr. J. C. Brown, Maquoketa; secretary and treasurer, Dr. William Lowder, Maquoketa; delegate to State Society, Dr. F. J. Swift, Maquoketa; alternate delegate, Dr. Wm. Lowder, Maquoketa; censors, Drs. Armstrong, Preston; Griffith Baldwin; D. N. Loose, Maquoketa.

Johnson County Medical Society

Work of 1927

The year has been one of activity in the society. It has been characterized by enthusiastic, interesting meetings.

At the beginning of the year, the society had sixty-six members, sixty-one resident, five non-resident. During the year, seventeen new members were added. During the year, also, we lost ten members, one by death, Dr. J. P. Mullin, four have transferred their membership to other societies, and five of the sixty-one resident members have become

non-resident. One of the members transferred was non-resident. This leaves a net membership of seventy-six, of whom sixty-eight are, at the present time, in residence.

During the year, ten meetings were held with an average attendance of over sixty, including guests. The average attendance of members was forty-four plus. Eleven members were present at every meeting; seven more attended every meeting, save one. Four resident and five non-resident members did not attend a single meeting. The last meeting of the year, was attended by one hundred. The eligible non-members, clinical assistants and interns, were the guests of the society.

Seven of the programs have been given by members of the society. The July program was given by Dr. Verne Hunt of Rochester, Minnesota. The November program was in the nature of a combined address and clinic, conducted by Dr. Chas. O. Giese of Colorado Springs. This meeting was held at Oakdale. Members of the Linn County Medical Society joined with us for that meeting.

There has been a spirit of unanimity and enthusiasm which speaks well for the future of the society.

February Meeting, 1928

The February meeting of the Johnson County Medical Society was held Wednesday evening, February 1, at the Iowa Memorial Union. Fifty-six members of the society and five guests, met as guests of Drs. Asher, Boyd, Hansmann, Scott, Williams and Van Epps.

The scientific program of the evening, was presented by Dr. H. J. Prentiss, head of the department of anatomy of the University. He gave a very interesting talk and demonstration on Anatomical Variations in the Sphenoidal Sinuses. The talk was illustrated with drawings and numerous specimens. These latter showed all variations from complete absence of the sinus in adults, to sinuses which involved every part of the body and processes of the sphenoid bone, even extending into the adjacent bones.

The meetings are held the first Wednesday of every month except August and September, from 6:00 to 8:00 p. m. The profession is cordially invited to attend whenever in the vicinity of Iowa City.

At the annual meeting of the Johnson County Medical Society the following officers were elected: President, Dr. George H. Scanlon; vice-president, Dr. Frank R. Peterson; secretary-treasurer, Dr. George C. Albright; delegate to State Society, Dr. N. G. Alcock; alternate, Dr. Henry J. Prentiss.

G. C. Albright, Sec'y.

Lee County Medical Society

The Lee County Medical Society met at Fort Madison, December 15, 1927. The program was as follows:

Symposium of Goiter, by Dr. Nelson M. Percy, Chicago. Discussion by Dr. Dorsey, Jr., Keokuk and Dr. B. J. Dierker, Fort Madison.

Infant Feeding, by Dr. Mark T. Floyd, Iowa City. Discussion by Dr. Frank Fuller, Keokuk, and Dr. I. W. Traverse, Fort Madison.

Industrial Surgery, by Dr. Paul Magnuson, Chicago. Discussion by Dr. O. T. Clark, Keokuk, and Dr. J. F. Chalmers, Fort Madison.

Banquet at 5:30 p. m.

Marshall County Medical Society

At the annual meeting of the Marshall County Medical Society the following officers were elected: President, Dr. A. C. Conaway; vice-president, Dr. Grove Harris; secretary-treasurer, Dr. W. W. Southwick; delegate State Medical Society, Dr. A. D. Wood, State Center; alternate, Dr. G. M. Johnson.

Pocahontas County Medical Society

The Pocahontas County Medical Society met at the court house in Pocahontas Tuesday afternoon, December 27, 1927. Dr. Walter L. Bierring of Des Moines presented an interesting talk. Dr. Roland Stahr of Fort Dodge read a paper. Dr. J. B. Hovenden, Dr. W. A. Bagby and others participated in the discussion.

Pottawattamie County Medical Society

The Pottawattamie County Medical Society met at the Chieftain Hotel, Council Bluffs, Friday, February 10, 1928. The program followed a 6:30 dinner.

Intestinal Obstruction, by Donald Macrae, M.D., Council Bluffs. Discussion opened by F. Earl Beltinger, M.D., and McM. Hanchett, M.D.

Diabetes with Special Reference to the Use of Insulin, by Gordon N. Best, M.D., Council Bluffs. Discussion opened by V. L. Treynor, M.D., and A. A. Johnson, M.D.

Warren County Medical Society

At the quarterly meeting of the Warren County Medical Society held Tuesday, January 10, Dr. Channing Smith of Granger addressed the society on matters of interest to the profession.

The following officers were elected: President, Dr. W. E. Sperow, Carlisle; vice-president, Dr. John F. Loosbrock, Lacona; secretary-treasurer, Dr. E. E. Shaw, Indianola.

Worth County Medical Society

The Worth County Medical Society held its annual meeting at Manly, February 14, and elected the following officers for the ensuing year: President, Dr. S. S. Westly, Manly; vice-president, Dr. C. W. Sanders, Northwood; secretary-treasurer, Dr. C. A. Hurd, Northwood; state delegate, Dr. S. S. Westly; alternate, Dr. F. E. Herbst, Northwood.

The report of the secretary showed a healthy condition of the society with every eligible physician of the county a member in good standing.

The next meeting will be held at Northwood, March 13.

C. A. Hurd, Sec'y.

Sioux Valley Medical Association

The Sioux Valley Medical Association closed a two day session at Hotel Martin, Wednesday, January 25.

Dr. Fred M. Smith of Iowa City delivered an address on Clinical Manifestations of Renal Insufficiency.

Dr. Kellogg Speed, Chicago, on Unhappy Results Following Fractures.

Dr. G. R. Albertson, University of South Dakota, Vermillion; Dr. J. C. Ohlmacher, also University of South Dakota; Dr. Wm. Jepson and Dr. R. F. Belliss of Sioux City, presented a symposium on Diseases of the Gall Bladder.

At the morning session a Fracture Clinic was conducted by Dr. Kellogg Speed, Chicago. A Medical Clinic by Dr. Fred M. Smith of the University of Iowa, Iowa City, and a discussion by Dr. Donald Macrae of Council Bluffs on Surgical Technic, especially in reference to the appendix.

Cedar Falls Medical Society

The Cedar Falls Medical Society held its annual meeting January 3. Following the annual dinner officers were elected for the ensuing year: President, Dr. George E. Hearst; vice-president, Dr. F. L. Vanderveer; secretary-treasurer, Dr. S. W. Bennett.

KANSAS CITY FALL CLINICAL CONFERENCE

The sixth annual Kansas City Fall Clinical Conference will be held in Kansas City, Missouri, at the new Shrine Temple, October 9, 10 and 11, 1928.

It is our plan this year to make this meeting of particular interest to the general practitioner, and we have every expectation of the largest attendance we have ever had. Our program is now being prepared.

Jas. R. McVay,
Director of Clinics.

MEDICAL NEWS NOTES

Sir Norman Walker of Edinburgh visited the United States during February in the interests of medical education. In Des Moines Sir Norman was the guest of Dr. and Mrs. Walter L. Bierring. Dr. Bierring has for many years been a prominent member of the National Board of Medical Examiners and in that capacity has come in close touch with medical educational boards and committees of foreign countries. Sir Norman Walker's report on the Iowa University Medical School was published in the Journal several years ago. While in Des Moines Sir Norman addressed the Des Moines Academy of Medicine, and in Chicago delivered two addresses before the Congress on Medical Education, Licensure and Hospitals.

Sir Norman has been a member of the General Medical Council of Great Britain for twenty-five years and has been deeply interested in medical education wherever medicine is taught, particularly in English speaking countries. It is with great pleasure that we welcome him to the United States.

A dinner will be given in honor of the one hundredth anniversary of the first issue of the Boston Medical and Surgical Journal, February 18, 1928.

We have always had a warm feeling for this journal. Looking over our bound volumes of medical journals we find the Boston Medical and Surgical appears in 1876. The journal as a private enterprise has not always been a success financially until it became the property of the Massachusetts State Medical Society, but it has always stood for high ideals. During the past hundred years it has offered a record of the history of medicine in the United States. We trust that some adjustment may be made to make the Boston Medical Surgeon the official organ of the medical profession of all New England.

Dr. Searle Harris of Birmingham has opened a hospital clinic in Birmingham, Alabama, known as Gorgas Hotel Hospital for the care of invalids, who seek the benefits of a southern climate. Dr. Searle Harris is one of the best known physicians of the south.

The prize offered in 1926 of \$100,000 for a cause or prevention of cancer has brought twenty-one suggestions from physicians, none of them new. The financial mind does not appear to understand the spirit of scientific research. It needs money to maintain research laboratories for long continued service, but the offering of prizes brings nothing of importance.

We are advised by Doctor Warnshuis, the able secretary-editor of the Michigan State Medical Society, that;

Commencing March 1st the editorship and secretary's office of the Michigan State Medical Society will be divorced. Dr. J. H. Dempster, 641 David-Whitney building, Detroit, Michigan, has become the new editor of the Michigan State Medical Journal, while Dr. F. C. Warnshuis will continue as business manager.

PERSONAL MENTION

Dr. Bert W. Caldwell, formerly of Iowa City and for the last three years superintendent of the Municipal Hospital at Tampa, Florida, has been elected secretary of the American Hospital Association with headquarters in Chicago. Dr. Caldwell was for two years superintendent of the University Hospital at Iowa City.

Dr. Henry S. Houghton, the new dean of the medical school of the University of Iowa, took up

his work at Iowa City January 30. It will be remembered that Dr. Houghton came from afar off. He was formerly head of the Union Medical College at Pekin, China. He was educated at the Ohio State University and in medicine at Johns Hopkins, Baltimore. He has had twenty years of experience which fairly qualifies him for the difficult work at the university. The profession of the state should feel it a duty to assist in every way possible the administration in carrying forward the work of our university medical school.

Dr. C. E. Ruth, Des Moines, addressed the Peoria City Medical Society on January 17, 1928, on the subject of "Fractures of the Hip". The meeting was largely attended and preceding the meeting Dr. Ruth was given a dinner at the Creve Coeur Club.

The friends of the late Dr. L. W. Littig, formerly of Davenport and Iowa City, a leader in the medical profession of Iowa for many years, will be pleased to know that his children have reached an unusual degree of distinction. Alice Littig Siems, a student of the sculptor Lorado Taft, has been recognized as one of the leading artists of America. Two of her works have been accorded a place in the winter exhibit of the National Academy of Design in New York City.

Dr. W. H. Scoins, a graduate of the medical school of the University of Nebraska, has become associated with the Doctors McCrary in their hospital at Lake City.

Dr. George B. Crow presented an address before the Des Moines County Medical Society, January 10, on the Treatment of Diabetes. Dr. Prentiss of Iowa City will be the principal speaker before the society on February 14.

Dr. T. E. Powers of Clarinda has been appointed by Governor John Hammill on the state board of health. Dr. Powers takes the place of Dr. D. C. Steelsmith of Sibley who has been made assistant to the public health commissioner.

Dr. William J. Mayo has been created a commander of the Royal Order of the North Star by King Gustav of Sweden.

HOSPITAL NOTES

The Allen Memorial Hospital at Waterloo appointed Dr. D. D. Krupp pathologist, which will include x-ray service.

The Broadlawns Hospital in Des Moines has a medical staff of sixty members.

MARRIAGES

Dr. Clarence J. Berne of Hartley and Miss Esther T. Van Cleave of Adel were married January 4. Dr. Berne is a graduate of the University Medical School at Iowa City.

OBITUARY

Dr. I. S. Bigelow of Dubuque died at his home December 11, 1927.

Dr. Bigelow was a native of Dubuque county, born in Washington township, January 29, 1839. Received his education in the public schools and Lenox College at Hopkinton. Dr. Bigelow received his med-



DR. I. S. BIGELOW

ical degree at Rush Medical College in 1881. Practiced three years at Lamotte and then moved to Dubuque, where he practiced to the time of his death.

Dr. Bigelow was the senior practicing physician in Dubuque. He became a member of the Iowa State Medical Society in 1886. It had been the privilege of the writer to know Dr. Bigelow nearly forty years. We associated him with a group of physicians in Dubuque that have passed, to be succeeded by a group of practitioners who have different therapeutic views, but we trust entertain a sympathetic respect for the men of Dr. Bigelow's time. This sentiment finds expression in the proceedings of the Dubuque County Medical Society of December 13, 1927.

Members of the Travel Study Club who made an extended visit to Europe will remember Dr. E. Armstrong, who died at his home in Greenleaf, Kansas, October 14, 1927, at the age of seventy-three years, eight months and two days. Dr. Arm-

strong had been in failing health for the past year but had conducted a limited practice until a week before his death.

Dr. Elwood Armstrong was born in Morris, Illinois, February 12, 1854. On March 6, 1876, he married Martha J. Gransden, who with three children survive him.

It was the writer's privilege to travel in Europe for several months with Dr. Armstrong as a close companion and came to regard him with warm affection. His watchful care of our mutual comfort contributed greatly to the pleasure of the trip. It was Dr. Armstrong who salvaged the writer's effects at the different places where we stopped and forwarded them to me, thus saving my reputation at home.

Dr. Armstrong was a successful physician, a cherished citizen and successful in business affairs.

Dr. Irene Smedly died in Augustana Hospital, Chicago, November 30, 1927. Dr. Smedly was born in Belvidere, Illinois, May 24, 1863.

She graduated from the Osage Seminary, and from Central University of Iowa at Pella. Graduated in medicine from the Keokuk Medical College and the College of Physicians and Surgeons (University of Illinois), Chicago.

Dr. Smedly practiced in Tama, Iowa and Sioux Falls, South Dakota. In 1921 she went as a missionary to India where she served five years, when she returned to the United States. Since returning to Iowa about a year ago she filled a number of speaking engagements.

WHOOING COUGH IMMUNIZATION

Vaccine for prevention and treatment has at times been condemned and, more frequently, heartily advocated. Vaccination seems to succeed when the conditions are favorable—in other words, when the vaccine is given soon enough and in doses large enough.

Quick action being so important, a new antigen is now offered by Parke, Davis & Co.—an antigen that contains no bacterial bodies, and in the use of which, therefore, there is no waiting time, the antigen being in solution and ready for instant action on the body cells.

This new product is said to be an ectoantigen, since it is obtained by the simple process of washing or rapidly "extracting" the pertussis bacilli with saline solution, and clarifying the "extract". The percentage of protein in this antigen, offered to the profession as Pertussis Immunogen, is very much less than that contained in bacterial vaccines; and the Immunogen is no more toxic, we are told, than the chemical preservative it contains.

Pertussis Immunogen is described and its rank as a prophylactic and therapeutic agent pointedly discussed in a booklet offered to physicians by Parke, Davis & Co.

COUNCIL PASSED

The notable success of many pharmaceutical products which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in "New and Non-official Remedies" recommends not only the plan itself, but the wisdom of the medical profession in selecting these reliable "Council Passed" remedies for daily use.

Among the medicinal chemicals now being widely used are such "Council Passed" products as Ephedrine Hydrochloride, Neocinchophen, Butyn, Metaphen, Butesin Picrate, Anesthesin, Chlorazene, Amidopyrine, Procaine and Neutral Acriflavine, all of which are described in the recent edition of "New and Non-official Remedies."

These remedies are the result of research and clinical study. They have been announced in our pages and are worthy of further investigation on the part of our readers.

BOOK REVIEWS

DIAGNOSIS AND TREATMENT OF DISEASES OF THE STOMACH, WITH AN INTRODUCTION TO PRACTICAL GASTRO-ENTEROLOGY

By Martin E. Rehfus, M.D., Assistant Professor of Medicine at Jefferson Medical College. Octavo Volume of 1236 Pages, with 159 Illustrations, Some in Colors. W. B. Saunders Company, 1927. Cloth \$12.

Dr. Rehfus in the preface of his rather exhaustive work on the stomach, states that he has written this book in the manner in which the subject appeals to him. We are to assume, therefore, that the work is largely original and based on his own experiences and observations. This fact should increase the value of the book. The size of the volume and the closely printed pages gives evidence of an immense amount of material collected.

Part first is divided into eighteen chapters and includes an exhaustive study of the functions of the stomach and the technic of stomach examination. The author quotes a statement of Dr. W. J. Mayo, who states "that the chief obstacle to successful abdominal diagnosis is the abdominal wall. Where organs are relatively inaccessible we must depend upon an indirect approach." This, of course, means that a diagnosis of diseases of the alimentary tract is reached by methods of precision and painstaking care and therefore points out the duty of the gastroenterologist. The first eighteen chapters are devoted to the elements involved in the anatomic and physiologic relations and the technic of examination and tests. There are included in these several chapters the principles involved in the treatment of diseases of the stomach.

Beginning with chapter 19, part two, we come to Acute Gastritis, Definition, Causes, Pathology and

Treatment, followed by a chapter on Chronic Gastritis considered in a similar relationship. A series of chapters are devoted to Atony of the Stomach, Acute Dilation, Chronic Dilation and Gastroparesis. These serious and troublesome conditions are presented in considerable detail.

Ulcer of the stomach and duodenal ulcer have been the subjects of study of many physicians and surgeons from many points of view. Dr. Rehfuess reviews the work on these subjects from his own point of view and from the viewpoint of many observers in an interesting and helpful way. The long controversy between internists and surgeons has by such writers as the author, given place to an agreement which has been of great value to sufferers from these diseases. In the diagnosis of ulcer by x-ray, warning is given as to the risk of error in interpretation of x-ray plates. Considerable attention is given to the various diets which have been suggested by such internists as Sippy and Warren Coleman.

Cancer of the stomach receives full consideration. A very interesting chapter is given to Motor Disturbances of the Stomach. This is one of the newer conceptions of functional disturbances and is entitled to serious consideration. The same may be said of Sensory Disturbances, Hyperacidity, Gall-Stone, etc.

We cannot consider all the subjects treated of in relation to the stomach, but we can bear witness from reading of the book that it is one which will give great satisfaction to the practitioner of medicine and surgery. The surgical discussion by Dr. John B. Deaver occupies one chapter.

TIGER TRAILS IN SOUTHERN ASIA

By Richard L. Sutton, M.D., Sc.D., L.L.D., F.R.S. (Edin.), Fellow of the Royal Geographical Society; Professor of Dermatology, University of Kansas.

It appears that Dr. Sutton is an authority on tigers, as well as on dermatology. Dr. Sutton set out from Saigon, after leaving Kansas City, and describes in a humorous manner the make-up of his party. After leaving Saigon, Dr. Sutton in due time takes us into the jungle and introduces us to the inhabitants thereof, particularly of Assam, Cambodia and Cochin-China, some large, some small. The snakes were interesting, but of a character, as it seems to us, to be avoided. The family group illustration of vipers creates a peculiar feeling. Of the larger animals, the elephant and the buffalo appear more agreeable, as we could see a better chance of escape.

Dr. Sutton says that tiger shooting is "hard work" and nerve straining business, which statement we are willing to accept, particularly after reading the doctor's story of his experiences in Indo-China. It appears that elephants are closely associated with tiger hunting in southeastern Asia.

After visiting Calcutta and Assam, our hunters entered Bengal, where a variety of interesting animals are found; the Bengal tiger has a considerable reputation; crocodile and python are well known. Tigers being Dr. Sutton's specialty, considerable attention is given to them from a sportsman's point of view. The book is very interesting to one who is not a sportsman.

Of late years hunting big game has become quite popular, but the hard work and the associated dangers will keep this sport in rather limited hands.

INTERNATIONAL CLINICS

A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Medicine, Surgery and Allied Branches of Medicine and Surgery. Edited by Henry W. Cattell, M.D., Philadelphia, and C. H. Mayo, M.D., Rochester, Minnesota. Lippincott Company, Volume II, 37th Series.

The most important paper in this number is by W. Storm Van Leeuwen, M.D., University of Leiden, Holland, on Allergic Diseases in Relation to Climate. A large proportion of our people are afflicted by allergic diseases which appear to be successfully treated only by changes of climate to the great inconvenience and loss of valuable time. Prof. Leeuwen has for some years studied the causes of these diseases. On the basis of his findings he has experimented with allergic-proof chambers in private houses where conditions could be obtained, to remove the necessity of migrating to more healthy regions. He describes a healthy place where asthma and other allergic diseases are rare and advises us to look further for the real causes of these diseases. He finds that microorganisms of animal and plant origin, as moulds, play an important part, and if the air is made pure by artificial means, allergic diseases may in great measure be prevented.

Dr. Leeuwen described how a private room may be made allergic-proof. We are familiar with the commonly observed allergic influence of various protein substances in exciting an attack of asthma and he records certain observations on mattresses in Holland, showing that the conditions of pure air and the absence of moulds for those who are sensitive are the real factors.

There are other papers in this volume of much importance which we are unable to review.

THE SURGICAL CLINICS OF NORTH AMERICA

Volume VII, Number 1, 285 Pages, with 153 Illustrations. Paper \$12; Cloth \$16, Net. W. B. Saunders Company, 1927.

This number is devoted to the clinical study of cancer. Leading surgeons of Philadelphia, representing the various branches in the field of surgery, (Continued on advertising page xx)

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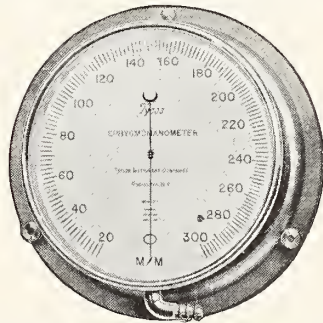
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BOOK REVIEWS

(Continued from page 112)

have made contributions of a clinical character. Dr. Sampson Handley of London contributes a discussion on the Origin of Bone Deposits in Breast Cancer, holding to the opinion that metastasis is along deep facial lymphatics, while Dr. John Bereton Carnett of Philadelphia and his associates contend for transplantation by means of the blood circulation, including metastasis from the prostate and the nervous system. The question of metastasis is rather extensively presented. In fact the entire book is devoted to cancer of various organs and tissues of the body and methods of treatment. The volume amounts to a treatise on various questions in the clinical presentation on cancer.

MEDICAL CLINICS OF NORTH AMERICA

July Number, 1927. Volume II, Number 1,
Octavo of 274 Pages. W. B. Saunders Co.
Paper \$12; Cloth \$16.

During the past year a considerable number of papers have appeared on Liver Feeding for Pernicious Anemia. In this, a Chicago number, a clinic appears by Drs. Charles A. Elliott, Walter H. Nadler and Paul Starr at Wesley Hospital, on this subject. A single case is presented in great detail, which appeared to show considerable improvement under this treatment.

A series of interesting cases of Albuminuria in Children is presented by Drs. Julius H. Hess and Joseph K. Calvin at Michael Reese Hospital.

Dr. Emmet B. Bay presents three cases of Unusual Prognosis in Heart Irregularities.

Dr. Lewis J. Pollock presents a discussion on Aneurysms of the Cerebral Vessels.

NEW AND NON-OFFICIAL REMEDIES

Chicago, Illinois, November 26, 1927.

In addition to the articles enumerated in our letter of October 29, the following have been accepted: Cutter Laboratory:

Pollen Extracts—Cutter, 5 c.c. vial—Alkali Weed Pollen Extract Concentrated—Cutter; All scale Pollen Extract Concentrated—Cutter; Annual Saltbrush Pollen Extract Concentrated—Cutter; Arizona Ash Pollen Extract Concentrated—Cutter; Bermuda Grass Pollen Extract Concentrated—Cutter; Black Walnut Pollen Extract Concentrated—Cutter; Box Elder Pollen Extract Concentrated—Cutter; Burning Bush Pollen Extract Concentrated—Cutter; Canary Grass Pollen Extract Concentrated—Cutter; Careless Weed Pollen Extract Concentrated—Cutter; Coast Sagebrush Pollen Extract Concentrated—Cutter; Cocklebur Pollen Extract Concentrated—Cutter; Common Ragweed Pollen Extract Concentrated—Cutter; Corn Pollen Extract

Concentrated—Cutter; Cottonwood Pollen Extract Concentrated—Cutter; False Ragweed Pollen Extract Concentrated—Cutter; Foxtail Grass Pollen Extract Concentrated—Cutter; Giant Ragweed Pollen Extract Concentrated—Cutter; Johnson Grass Pollen Extract Concentrated—Cutter; June Grass Pollen Extract Concentrated—Cutter; Lamb's Quarters Pollen Extract Concentrated—Cutter; Marsh Elder Pollen Extract Concentrated—Cutter; Mountain Cedar Pollen Extract Concentrated—Cutter; Mugwort Pollen Extract Concentrated—Cutter; Oak Pollen Extract Concentrated—Cutter; Olive Pollen Extract Concentrated—Cutter; Orchard Grass Pollen Extract Concentrated—Cutter; Plantain Pollen Extract Concentrated—Cutter; Red Root Pigweed Pollen Extract Concentrated—Cutter; Red Top Pollen Extract Concentrated—Cutter; Russian Thistle Pollen Extract Concentrated—Cutter; Rye Grass Pollen Extract Concentrated—Cutter; Sagebrush Pollen Extract Concentrated—Cutter; Shad Scale Pollen Extract Concentrated—Cutter; Timothy Pollen Extract Concentrated—Cutter; Tumbleweed Pollen Extract Concentrated—Cutter; Velvet Grass Pollen Extract Concentrated—Cutter; Western Ragweed Pollen Extract Concentrated—Cutter; Western Waterhemp Pollen Extract Concentrated—Cutter; Wild Oat Pollen Extract Concentrated—Cutter; Yellow Dock Pollen Extract Concentrated—Cutter.

Chicago, Illinois, December 30, 1927.

In addition to the articles enumerated in our letter of November 26, the following have been accepted: Winthrop Chemical Co., Inc.:

Phanodorn.

Change of Agency

Gynergen, formerly distributed by H. A. Metz Laboratories, Inc., New York, is now distributed by Sandoz Chemical Works, Inc., New York. The Council has continued the acceptance of Gynergen under the new distributor.

Chicago, Illinois, January 28, 1928.

In addition to the articles enumerated in our letter of December 30, the following have been accepted: Hermes-Groves Dairy Co.:

Bacillus Acidophilus Milk—Hermes.

Lederle Antitoxin Laboratories:

Anterior Pituitary Desiccated—Lederle.

Posterior Pituitary Desiccated—Lederle.

Whole Pituitary Desiccated—Lederle.

Eli Lilly & Co.:

Iletin (Insulin—Lilly) U-100, 10 c.c.

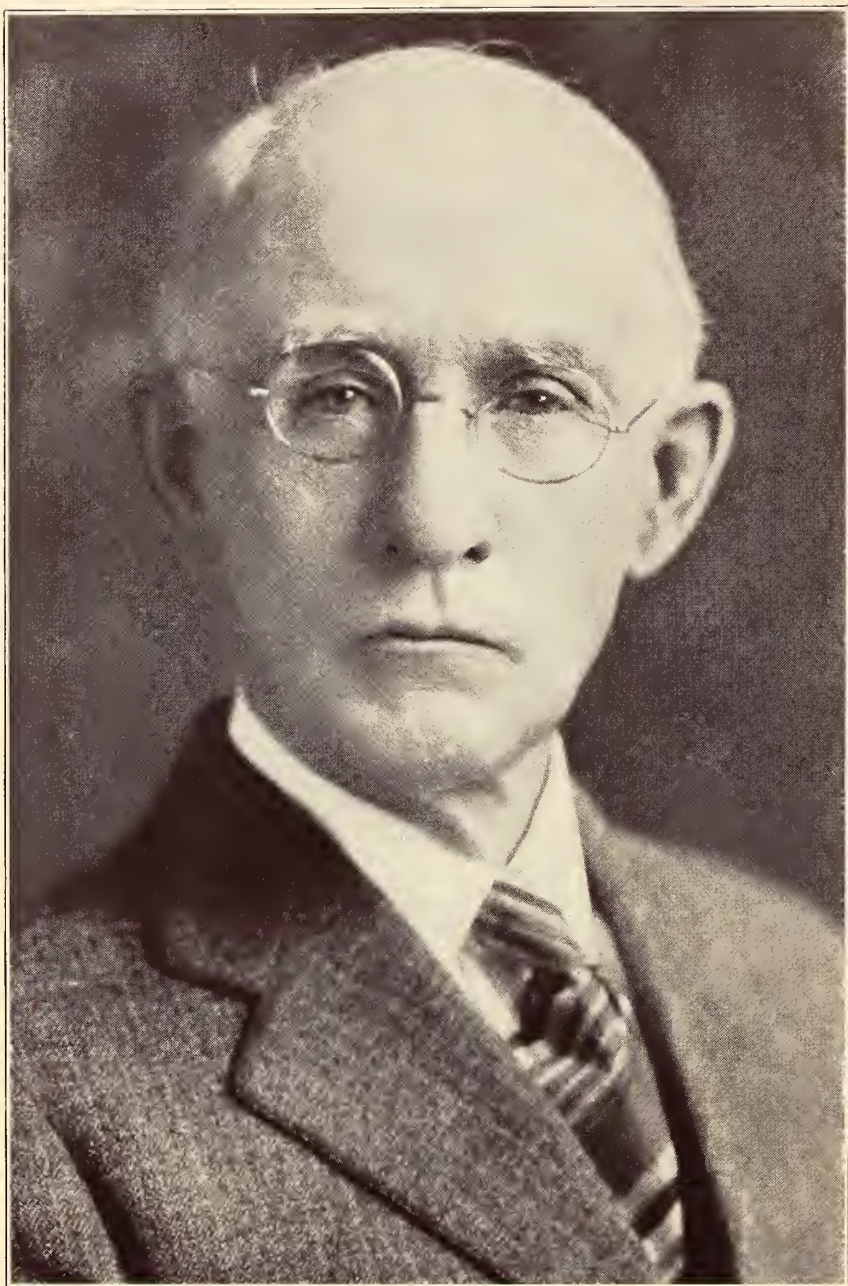
Liver Extract No. 343.

H. K. Mulford Co.:

Sterile Solution of Dextrose (d-Glucose) 50 c.c., Double End Vial.

Sharp & Dohme:

Hexylresorcinol Solution S. T. 37.



Michael J. Kenefick, M.D.

President

Iowa State Medical Society

1927-1928

The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, APRIL, 1928

No. 4

IOWA STATE MEDICAL SOCIETY ORGANIZED 1850

Seventy-Seventh Annual Session

CEDAR RAPIDS—MAY 9, 10, 11, 1928

Headquarters—Hotel Roosevelt
General Meetings—Shrine Temple
Registration and Exhibits
Shrine Temple
Eye, Ear, Nose and Throat Section—Upper Lounge Room—Shrine Temple
Headquarters for Ladies—Hotel Roosevelt
Headquarters for Councilors—Mezzanine Floor, Hotel Roosevelt
Secretary's Headquarters—Grant Room, Hotel Roosevelt

Program

OPENING EXERCISES

Wednesday, May 9

8:30 a. m.

Call to Order by the President—
MICHAEL J. KENEFICK, M.D., Algona
Invocation—
REV. WILLIAM A. LEE, Cedar Rapids
Pastor, First Congregational Church
Address of Welcome for the City—
HON. J. F. RALL, Mayor of Cedar Rapids
Address of Welcome for the Profession—
HARRY EARL PFEIFFER, M.D., Cedar Rapids
President Linn County Medical Society
Response—
JOSEPH HENRY SAMS, M.D., Clarion
Gavel Presentation—
WILLIAM A. ROHLF, M.D., Waverly

SCIENTIFIC PROGRAM

Section Chairman and Reporters

Section on Medicine—
Chairman, JOHN H. PECK, M.D., Des Moines
Section on Surgery—
Chairman, WILLIAM A. ROHLF, M.D., Waverly
Section on Ophthalmology, Otology and Rhinology—
Chairman, JAMES E. REEDER, M.D., Sioux City

Official Reporter, General Session—
MISS ADELAIDE FOLSOM, Ripon, Wisconsin
Reporter, House of Delegates—
MRS. MARIE REYES, Des Moines

Wednesday, May 9

9:00 a. m.

1. Health Regime in Our Public Schools—
EDWARD L. ROHLF, M.D., Waterloo, *twenty minutes*
Discussion opened by LOUIS A. THOMAS, M.D., Red Oak,
five minutes
2. Uterine Fibroids; Their Symptoms and Treatment—
GEORGE M. CRABB, M.D., Mason City, *twenty minutes*
Discussion opened by DONALD MACRAE, JR., M.D., Council
Bluffs, *five minutes*
3. Prevention and Early Recognition of Pulmonary Tuberculosis in Young Adults—
JAMES B. KNIFE, M.D., Armstrong, *twenty minutes*
Discussion opened by J. CARL PAINTER, M.D., Dubuque,
five minutes
4. Address in Surgery: Head Injuries; Differential Diagnosis and Treatment—
(Lantern Demonstration)
CLARENCE W. HOPKINS, M.D., Chief Surgeon for the Chicago
Northwestern Railroad, Chicago

Wednesday, May 9**1:30 p. m.**

5. President's Address—

MICHAEL J. KENEFICK, M.D., Algona

6. Control of Scarlet Fever Epidemics with Special Reference to Immunization—

PAUL S. RHOADS, M.D., Scarlet Fever Committee, Chicago
Discussion opened by HERBERT R. SUGG, M.D., Clinton,
five minutes

7. Malta Fever; Clinical Aspects of Cases which have Occurred in Iowa—

ALBERT V. HARDY, M.D., Iowa City, *twenty minutes*
Discussion opened by HENRY R. PASCOE, M.D., Carroll, *five minutes*

8. The Neglected Toxic Goiter—

CHRISTIAN B. LUGINBUHL, M.D., Des Moines, *twenty minutes*
Discussion opened by ALDIS A. JOHNSON, M.D., Council Bluffs, *five minutes*

9. Tetany—A Complication of Thyroid Surgery—

ROBERT H. LOTT, M.D., Carroll, *twenty minutes*
Discussion opened by JOHN B. SYNHORST, M.D., Des Moines, *five minutes***3:30 p. m.**Meeting—House of Delegates
Roosevelt Room, Roosevelt Hotel**Wednesday Evening, May 9**

Social Entertainment

Banquet—Montrose Hotel, Crystal Room

Six-thirty O'clock

Physicians, their wives and guests

Thursday, May 10**9:00 a. m.**

10. Fundamental Points in X-ray Diagnosis of Bone Tumors—

(Lantern Demonstration)
ROY F. BELLAIRE, M.D., Sioux City, *twenty minutes*
Discussion opened by ARTHUR W. ERSKINE, M.D., Cedar Rapids, *five minutes*

11. Diagnosis of Neurasthenia—

JOHN C. PARSONS, M.D., Creston, *twenty minutes*
Discussion opened by FRANK A. ELY, M.D., Des Moines, *five minutes*

12. The Employment of Oxygen in Joint Surgery—

(Lantern Demonstration)
KARL R. WERNDORFF, M.D., Council Bluffs, *twenty minutes*
Discussion opened by ARCHIBALD F. O'DONOGHUE, M.D., Sioux City, *five minutes*

13. The Epochal Importance of "De Motu Cordis"—

ARTHUR D. WOODS, M.D., State Center, *twenty minutes*
Discussion opened by FRANK M. FULLER, M.D., Keokuk, *five minutes*

14. Some Minor but Important Points in Kidney Surgery—

(Lantern Demonstration)
NATHANIEL G. ALCOCK, M.D., Iowa City, *twenty minutes*
Discussion opened by J. FRED CLARK, M.D., Fairfield, *five minutes*

15. Symptoms and Treatment of Exfoliative Dermatoses—

JOHN B. KESSLER, M.D., Iowa City, *twenty minutes*
Discussion opened by HARRY C. WILLETT, M.D., Des Moines, *five minutes***Thursday, May 10****1:30 p. m.**

16. Clinical Differentiation of Hyperthyroidism and Various Functional Disorders—

CLARENCE W. BALDRIDGE, M.D., Iowa City, *twenty minutes*
Discussion opened by GEORGE B. CROW, M.D., Burlington, *five minutes*

17. Embolism—

WILLIAM A. ROHLF, M.D., Waverly, Chairman Surgical Section, *twenty minutes*

18. Address in Medicine: The Pathology of Pulmonary Tuberculosis Deduced from Physical Signs and the X-ray Plate—

KENNON DUNHAM, M.D., Associate Professor of Medicine, University of Cincinnati College of Medicine, Cincinnati

19. Smallest Amount of Renal Tissue Compatible with Life—Malignant Sclerosis of Kidney—

(Lantern Demonstration)
FREDERICK W. MULSOW, M.D., Cedar Rapids, *twenty minutes*
Discussion opened by FRIEDRICH A. HECKER, M.D., Ottumwa, *five minutes*

20. Diagnosis in Gall-Bladder Disease—

LAFE H. FRITZ, M.D., Dubuque, *twenty minutes*
Discussion opened by HOWARD L. BEYE, M.D., Iowa City, *five minutes*

21. Conservative Management of Acute Osteomyelitis—

(Lantern Demonstration)
EDWARD J. HARNAGEL, M.D., Des Moines, *twenty minutes*
Discussion opened by CHARLES S. KRAUSE, M.D., Cedar Rapids, *five minutes*

22. The Incidence and Treatment of Persistent Occipito-posterior Positions—

HARRY W. VINSON, M.D., Ottumwa, *twenty minutes*
Discussion opened by MARY L. TINLEY, M.D., Council Bluffs, *five minutes***Thursday Evening, May 10****8:00 p. m.**

23. Bronchiectasis—

(Lantern Demonstration)
JOHN H. PECK, M.D., Des Moines, Chairman Medical Section

24. The Relation of Ophthalmoscopy to General Medicine—

(Lantern Demonstration)
ARTHUR JOSEPH BEDELL, M.D., Clinical Professor of Ophthalmology and Otology, Albany Medical College, Albany

Smoker following Scientific Program

Friday, May 11**9:00 a. m.**

25. Salpingitis—Its Diagnosis and Treatment—

W. ROSCOE JEPSON, M.D., Sioux City, *twenty minutes*
Discussion opened by RALPH E. KEYSER, M.D., Marshalltown, *five minutes*

26. Simplification of Obstetrical Care—
EVERETT D. PLASS, M.D., Iowa City, *twenty minutes*
Discussion opened by FLOYD W. RICE, M.D., Des Moines,
five minutes
27. Neurological Studies of Some Education De-
viates in Iowa Schools— (Lantern Demonstration)
SAMUEL T. ORTON, M.D., Columbus, *twenty minutes*
Discussion opened by GEORGE DONOHUE, M.D., Cherokee,
five minutes
28. Poliomyelitis; with Special Reference to its Epi-
demiology and Prevention—
WADE H. FROST, M.D., United States Public Health Ser-
vice, Washington, D. C.
Discussion opened by FRED W. POWERS, M.D., Waterloo,
five minutes
29. Acute Appendicitis as a Complication of Preg-
nancy—
WENDELL L. DOWNING, M.D., Le Mars, *twenty minutes*
Discussion opened by WILLIAM E. BROWN, M.D., Cedar
Rapids, *five minutes*
30. Report of the Transactions of the House of
Delegates—
TOM B. THROCKMORTON, M.D., Secretary, Des Moines

OPHTHALMOLOGY, OTOLOGY AND RHINO-
LARYNGOLOGY

Meeting Place—Upper Lounge Room
Shrine Temple

Chairman, James E. Reeder, M.D., Sioux City

Thursday, May 10
8:00 a. m.

Tonsil Clinics at St. Luke's and Mercy Hospitals

9:30 a. m.

1. Chairman's Address—
JAMES E. REEDER, M.D., Sioux City
2. Infectious Mononucleosis Co-existing with
Mastoiditis— A. J. JOYNT, M.D., Waterloo
Discussion opened by F. F. AGNEW, Independence
3. Acute Otitis Media in Infants—
(Lantern Demonstration)
D. M. LIERLE, M.D., Iowa City
Discussion opened by W. H. JOHNSTON, M.D., Muscatine
4. Lateral Sinus Thrombosis—
FORREST HALL, M.D., Webster City
Discussion opened by S. A. O'BRIEN, M.D., Mason City

SYMPOSIUM

5. Submucous Resection of the Nasal Septum—
H. M. IVINS, M.D., Cedar Rapids
6. Modified Submucous Resection—
F. H. ROOST, M.D., Sioux City
Discussion of paper number five opened by J. C. DECKER,
M.D., Sioux City
Discussion of paper number six opened by GORDON F.
HARKNESS, M.D., Davenport

- Thursday, May 10
1:30 p. m.
7. Otosclerosis— J. A. DOWNING, M.D., Des Moines
Discussion opened by H. J. MCCOY, M.D., Des Moines
8. Eye Disorders of Nasal Origin—
F. L. WAHRER, M.D., Marshalltown
Discussion opened by T. R. GITTINS, M.D., Sioux City
9. Relative Values of the Short and the Prolonged
Occlusion in Vertical Phorias—
E. M. TAYLOR, M.D., Dubuque
Discussion opened by C. S. O'BRIEN, M.D., Iowa City
10. Orthotic Albuminuria—
FRANK CARROLL, M.D., Cedar Rapids
Discussion opened by R. R. SNYDER, M.D., Des Moines

Arthur Joseph Bedell, M.D., Clinical Professor
of Ophthalmology and Otology, Albany Medical
School, Albany, New York, will address the
General Session Thursday Evening on: The
Relation of Ophthalmoscopy to General Medi-
cine.

MEETING PLACES

Headquarters—Hotel Roosevelt
General Meetings—Shrine Temple
Registration and Exhibits—Shrine Temple
Eye, Ear, Nose and Throat Section—Upper Lounge
Room—Shrine Temple
Headquarters for Ladies—Hotel Roosevelt
Headquarters for Councilors—Mezzanine Floor,
Hotel Roosevelt
Secretary's Headquarters—Grant Room, Hotel
Roosevelt

Rules for Papers and Discussions

"No address or paper before the Society, except
those of the President, Guests, and Orators, shall
occupy more than twenty minutes in its delivery;
and no member shall speak longer than five minutes
nor more than once on any subject." "All papers
read before the Society shall be the property of the
Society." (Excerpts from By-laws.)

Each paper should be typewritten, and deposited
with the Secretary when read; and if this is not done,
it will not be published.

On rising to discuss a paper, the speaker will
please come forward and announce his name and
address plainly.

Registration

Do not fail to Register.
Please bring your membership card for presenta-
tion at Registration Desk.

TAKE DUE AND TIMELY NOTICE

Your 1928 membership card will be your mark of
eligibility to register at the Seventy-Seventh Annual
Session, Cedar Rapids, May 9, 10 and 11. Have you
paid your 1928 dues to your local Secretary?

ENTERTAINMENT

Wednesday, May 9

Reception for visiting ladies by the wives of members of the Linn County Medical Society at the Hotel Roosevelt. Three to five o'clock.

Banquet, Crystal Room, Montrose Hotel, Physicians, their wives and guests. Six-thirty o'clock.

Thursday, May 10

Drive through the city, followed by tea at the Iowa Railway and Light Bungalow, starting at two o'clock.

Theater Party at the Strand Theater, seven o'clock. Smoker at the Shrine Temple in the evening following Scientific Program.

Friday, May 11

Inspection Tour of Quaker Oats Plant. Ten to twelve o'clock.

IOWA STATE MEDICAL SOCIETY OFFICERS AND COMMITTEES 1927-1928

President	Michael J. Kenefick, Algona
President-Elect	Thomas U. McManus, Waterloo
First Vice-President	Ora F. Parish, Grinnell
Second Vice-President	Royal F. French, Marshalltown
Secretary	Tom B. Throckmorton, Des Moines
Treasurer	Robert L. Parker, Des Moines

COUNCILORS

	Term expires
First District—George B. Crow, Burlington	1930
Second District—Anthony P. Donohoe, Davenport	1932
Third District—Fred F. Agnew, Independence	1931
Fourth District—Paul E. Gardner, New Hampton	1929
Fifth District—George E. Crawford, Cedar Rapids	1928
Sixth District—Samuel T. Gray, Albia, Secretary	1928
Seventh District—Channing G. Smith, Granger, Chairman	1929
Eighth District—Fred A. Bowman, Leon	1929
Ninth District—Henry B. Jennings, Council Bluffs	1932
Tenth District—Watson W. Beam, Rolfe	1931
Eleventh District—Giles C. Moorhead, Ida Grove	1930

TRUSTEES

Oliver J. Fay, Des Moines, Chairman	1928
Vernon L. Treynor, Council Bluffs	1930
John F. Herrick, Ottumwa	1929

DELEGATES TO A. M. A.

Donald Macrae, Jr., Council Bluffs	1928
Bert L. Eiker, Leon	1928
William Jepson, Sioux City	1929
Thomas F. Thornton, Waterloo	1929

ALTERNATE DELEGATES TO A. M. A.

Thomas A. Burcham, Des Moines	1928
John F. Herrick, Ottumwa	1928
Fred Moore, Des Moines	1929
Clyde A. Boice, Washington	1929

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MEDICO-LEGAL

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Henry B. Jennings, Council Bluffs	1928
George C. Albright, Iowa City	1930

SCIENTIFIC WORK

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Robert L. Parker	Des Moines

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W. Eugene Wolcott	Des Moines
Peter A. Bendixen	Davenport
Michael J. Kenefick, Ex-Officio	Algona
Tom B. Throckmorton, Ex-Officio	Des Moines

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Tom B. Throckmorton	Des Moines

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Fred M. Smith, Iowa City	1928
Frank E. Sampson, Creston	1930

HOTELS IN CEDAR RAPIDS, IOWA, WITH RATES

Roosevelt Hotel—Rooms, 250; single, \$2; double, \$3.50; single with bath, \$2.50; double with bath, \$4; twin beds with bath, \$5 to \$6.

Montrose Hotel—Rooms, 250; single, \$3; double, \$5; single with bath, \$3.50; double with bath, \$5.50; twin beds with bath, \$5.50 to \$6.

Allison Hotel—Rooms, 200; single, \$1.25 to \$1.75; double, \$2 to \$3; single with bath, \$2 to \$3; double with bath, \$3 to \$4.50; twin beds with bath, \$4.50.

Magnus Hotel—Rooms, 150; single, \$1.25 to \$1.50; double, \$2 to \$2.50; single with bath, \$2 to \$2.50; double with bath, \$3.50 to \$4.

Lincoln Hotel—Rooms, 100; single, \$1 to \$1.50; double, \$2 to \$3; single with bath, \$2; double with bath \$3 to \$4.

Grand Hotel—Rooms, 100; single, \$1 to \$1.25; double, \$1.50 to \$1.75; single with bath, \$1.50; double with bath, \$2.50.

Pullman Hotel—Rooms, 75; single, \$1 to \$1.25; double, \$2 to \$2.50; single with bath, \$1.50 to \$2; double with bath, \$2.50 to \$3.50.

STATE SOCIETY

IOWA MEDICAL WOMEN

THIRTY-FIRST ANNUAL MEETING

CEDAR RAPIDS

Tuesday, May 8, 1928

Headquarters—Hotel Montrose
Meeting Place—Hotel Montrose

Morning Session
9:00 a. m.

Parlor G—Hotel Montrose

Welcome—
Miss LOUISE HATHAWAY, President,
Business and Professional Women's Club

Appointment of Committees

President's Address—Infant Feeding

Annual Business Meeting

12 m.

Luncheon—Hotel Roosevelt
(Guests of Cedar Rapids Medical Women)

Afternoon Session
2:00 p. m.

Clinic—Allergy— ZELLA WHITE STEWART, M.D.

Address—Medical Women in the Orient—
MARY MCKIBBIN HARPER, M.D., Oak Park, Illinois

The Iowa State Psychopathic Hospital Service to
the Community— ROLETTA O. JOLLY, M.D., Iowa City

Unfinished Business

Tea—The Bungalow—Iowa Railway and Light Com-
pany—General Offices—
Miss LOUISE HATHAWAY, Hostess

Dinner—The Hobby House
(Guests of the Business and Professional Women's Club)

Theater Party
(Guests of Public Health Nursing Bureau)

OFFICERS

President-----HELEN JOHNSTON, M.D., Des Moines
Vice-President---CHRISTINE ERICKSEN HILL, M.D., Council Bluffs
Secretary-----EPPIE MCCREA, M.D., Eddyville
Treasurer-----MARY L. TINLEY, M.D., Council Bluffs

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ELEANOR HUTCHINSON, M.D.

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GRACE DOANE, M.D. JEAN JONGEWAARD, M.D.
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HARRIETT HAMILTON, M.D.

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ROSE WISTEIN, M.D. AGNES SAFELY, M.D.
FLORENCE JOHNSTON, M.D.

Districts
ALICE H. HATCH, M.D. CLARA Y. EIRLY, M.D.
ZELLA WHITE STEWART, M.D. MYRTLE GRIFFIN, M.D.

CEDAR RAPIDS

Cedar Rapids, the meeting place this year of the Iowa State Medical Society, is a place where farm and factory meet in one of the chief grain centers of the United States, and is one of the foremost industrial cities of Iowa. It is not generally known that over 60,000,000 bushels of grain are processed in this city, every year, or that the tremendous expansion program of the cereal mills, involving a \$5,150,000 expenditure, will considerably enlarge that figure. The twelve million dollar building program of the past two years, now nearing completion, has given us a real city skyline and ushered in a new era of substantial progress.

Neither is it generally known that the manufactured output of the 224 factories in Cedar Rapids each year averages \$120,000,000 in value, that its annual jobbing business totals \$50,000,000, and its annual retail business amounts to \$60,000,000—a total annual business in these three lines of \$230,000,000. And in the trading territory of which Cedar Rapids is the natural center upwards of \$80,000,000 is produced each year in livestock and agricultural products.

Pioneering and Progress

Things have moved with a zest in this particular spot in Iowa since the germ of Cedar Rapids began to take root. One of the first incidents of its founding concerns Robert Ellis, early arrival, pioneer, and city builder. Following up the stream now called the Cedar river, he came to a crude shanty and a little patch of garden. And there lay the body of a white man, apparently lifeless. Ellis acted on his first impulse, which was to shout. Whereat the "Corpse" sat up and greeted him: "Hello, stranger—Wall; I swan!" Cedar Rapids has been awake ever since. That was in 1838. The man who so suddenly came to life was Phillip Hull, who had made a little home here the previous year, and constituted the population of one. Since then Cedar Rapids has grown to number approximately 60,000 persons.

It was fifty-four years ago that a quiet, unassuming young man of nineteen came to Cedar Rapids, acquired an old elevator, and announced that he was going to operate an oatmeal mill. When he said he was going to turn out 300 barrels a day, folks laughed. But today, the 300-barrel mill which he founded, the Quaker Oats plant, manufactures the world's best known cereal produce, and has a capacity of 10,000 barrels of oatmeal daily.

The center and hub of Cedar Rapids is an "emerald isle", a beautiful green island, municipally owned, in the Cedar river. The imposing gray stone structure of a new Linn county court house was recently completed here. A memorial coliseum to Cedar Rapids soldiers will soon join it. This will house the city government, the American Legion and kindred groups and its auditorium, to seat 5,000, will enhance convention facilities. It is nearing completion now. The stream is spanned by concrete bridges representing an investment of \$1,000,000. These are the width of the avenues, and their rows of lights arching the winding blue ribbon of water at night give an aspect of fairylike enchantment.

Education and Welfare Work

A modern school system representing an investment of \$4,570,980. It includes sixteen elementary, one ungraded, two senior high schools, and four junior high schools, the latter built in the last five years. There are eight parochial schools and the Mount Mercy Academy for girls. The total enrollment of the public, private, and parochial schools total 14,874.

Coe College, one of the leading educational institutions of the Middle West, and the college from which Col. W. R. Stewart graduated, has 1,200 students. The Cedar Rapids Business College has 600 enrolled.

Cedar Rapids has one daily newspaper, The Evening Gazette and Republican. It has two weeklies.

There are two hospitals, St. Luke's Methodist and Mercy, each having 200 beds. There are forty-three churches and nine public welfare organizations which are financed by the community chest plan.

Resources and Facilities

Cedar Rapids' trade territory has a population of 300,000 within easy access of the city. Four steam and two electric railroads furnish transportation.

Electric lines connect Cedar Rapids with Waterloo, Iowa City, Mount Vernon and other points. More than seventy freight trains meet the daily needs of shippers and the steam roads send fifty-four passenger trains through the city daily. The electric railroads do a heavy freight business and operate sixty-four passenger trains a day into this city. The railroad systems handle more than 3,000,000 tons of freight for the city annually. A network of paved roads already completed connects up with the national system as developing.

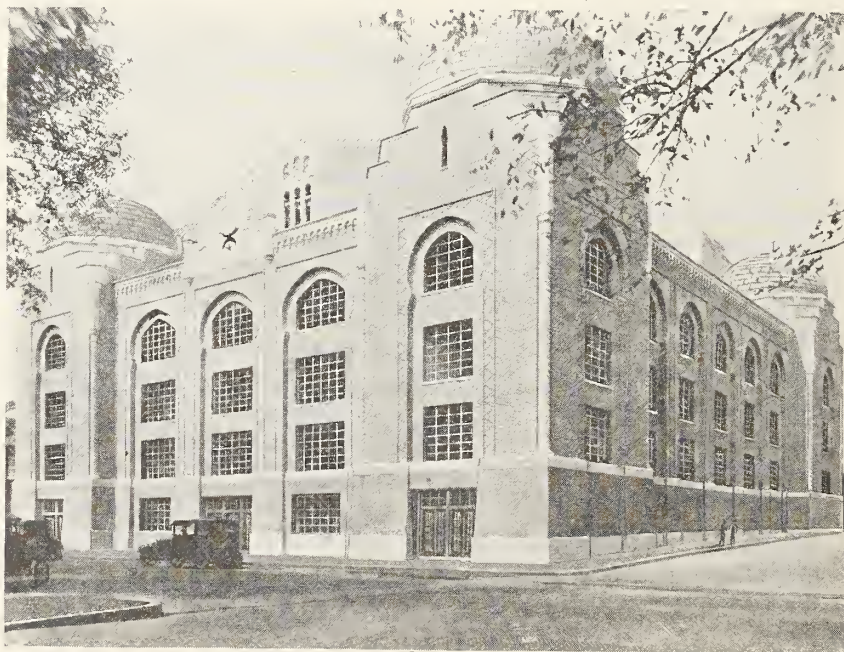
Cedar Rapids has fifteen hotels and thirty restaurants and cafeterias. An apartment hotel to house 100 families was recently completed at a cost of more than \$600,000. A municipally-owned water plant has a storage capacity of 8,550,000 gallons. Gas and electric utilities are independently owned and efficiently operated. Telephone service is excellent. Two street car systems have related themselves to the development of the city under the zoning commission.

Substantial and Progressive

Cedar Rapids has nine banks, and it is significant that this is one city in Iowa that has never experienced a bank failure. Taxes are lower here than those of any other city of the size in this section except one.

The Chamber of Commerce with its various bureaus has a maximum membership of approximately 1,000. There are four other clubs with half as many more, actively interested in the advancement of the city. There are 196 fraternal groups, lodges and societies. There are nine service clubs.

Long ago Elbert Hubbard said: "Cedar Rapids is a city with a soul." The city has been proud of that distinction, and has tried to justify it with kindness, courtesy and hospitality. It has combined the practical with the aesthetic in shaping its forward steps. Its progress has proved the wisdom of this course.



Shrine Temple—General Meeting Place

THE SECOND ANNUAL CONFERENCE OF STATE SOCIETY OFFICERS, COUNTY SECRETARIES AND COUNCILORS

The advantages of a conference of the executive officers of the State Medical Society had been apparent for some time. The growing demand for organization and the advantages to be derived therefrom brought men together for council. The medical unit—the county society—is no new thing, but in many cases loosely organized and exercising an influence not comparable to the education and intelligence of its members. The larger influence as represented by the State Society, and again by the American Medical Association, operates from above downward to the county unit. To gain permanent strength the organization should begin with the component unit, upward. This order was recognized by the founders of the present plan. But because of the exalted character of the men of the larger organization, the natural order was reversed, but now the time has come when permanence and stability rests on the unit. It may be admitted that in the beginning, isolated and scattered unit members were responsible for the higher organization. It is recognized by men of vision that we must return to a natural order, as a political organization, the unit, the state and the national. If in the unit there is failure the reaction will be felt all along the line, to the top.

The question of how the unit might be strengthened is of vital importance, and as the secretaries of units are the best informed of the unit members, it is but natural that a conference of these men should best serve to point the way. Another group who are especially fitted by experience and training, men who constitute the State Society in the interim, the councilors, and, in the American Medical Association, the board of trustees, co-ordinate the activities of the units. These agents are, or should be, carefully selected, for a failure on their part would bring an element of weakness along the entire line.

In our discussion the county society secretaries and the district councilors are the responsible agents in the organization of the State Society. These officers are not agents of convenience, but agents of organization, so the secretary of the State Medical Society, with the approval of the board of trustees, invited a conference, and as they are serving the interests of the medical profession of the state, offered to pay their traveling expenses. This is as it should be. It should also

be regarded as a personal distinction to appear as the responsible agents of the profession.

On January 12, 1928, the second annual conference of county secretaries and district councilors of the Iowa State Medical Society convened at the Fort Des Moines Hotel, to consider certain important questions relating to society organization in Iowa. The meeting was organized by electing president-elect McManus chairman and Tom B. Throckmorton, secretary Iowa State Medical Society, secretary. After a few preliminary remarks by the chairman and secretary, Dr. Corwin S. Cornell read a paper entitled "How a Deputy Councilor May be of Service to the State Society". This paper was discussed by Drs. Throckmorton, Taylor, Dyer, Lott, Herick, Hartman, Bendixen, Van Meter, Onclek, Dr. Cornell closing.

Following Dr. Cornell, Dr. Samuel T. Gray, secretary of the council, read a paper on "The New Basic Science Law". This paper was discussed by Drs. Bierring, Nester, Eiker, Olin West, Albert, Dr. Gray closing. Following this full and interesting discussion, the conference adjourned for luncheon.

The conference adjourned until 1:30 p. m.

Dr. Olin West, secretary and general manager of the American Medical Association, delivered an address on various subjects, Dr. West having a prejudice to formal addresses, reviewed in a general way the various important matters that came up to the office of the association. The discussion was very interesting in that it showed the importance of the great office in which the affairs of some 90,000 physicians are safeguarded. It is difficult to appreciate the number of important questions submitted to the office by individual physicians and medical organizations for advice and settlement. Dr. West is gifted by nature and experience to fill this high and responsible office. It is impossible for the writer to recall all he said, but we can say that the information imparted was of a helpful character and impressed upon the members of the conference the responsibilities resting upon individual members and the various medical organizations. He pointed out how it was possible to make professional life fuller, more comfortable, more satisfactory and happier.

Dr. West reviewed the discussions of the morning session and by suggestion and inference cleared up certain doubtful points. It was made clear that beginning with the county society unit, the state and the national bodies, there was a great future for the profession, but there were

elements of present weakness which were being gradually eliminated by conference and consultation. The greatest possible danger to the medical profession is the failure to meet the public conception of the duties and obligations of the medical profession considering the generous spirit manifest in grants of large sums of money to promote medical education. We have only to review the attitude of the public during the last fifty years. It is true that the initiative has been with far seeing groups of medical men, but it is astonishing how readily the public has followed.

Following Dr. West came Dr. Treynor, representing the board of trustees, who ably supplemented much Dr. West said, based on a long experience and thoughtful consideration.

The session closed with a paper by Dr. Mark C. Jones, who reviewed the subject "The County Medical Society and the Community".

While listening to these discussions the writer was impressed with the thought that many practitioners are too much influenced by the apparent difficulties of medical practice. If they could bring before themselves the thoughtless regard of the public for the medical profession as a body a generation ago; the absence of well organized hospitals, and now think of the great medical centers, the wonderful groups of buildings erected by the public for the service of practitioners of medicine and public welfare, under the direction of highly trained men, and think of how much of their own education is paid by the public, leads one to feel, who has passed through the evolutionary periods, how much we owe to public generosity, and if we perform our whole duty, that we become the favored of all classes.

HOW A DEPUTY COUNCILOR MAY BE OF SERVICE TO THE COUNTY SOCIETY*

CORWIN S. CORNELL, M.D., Knoxville

Sometime, somewhere in my brief career I have either read or heard an old adage, "Troubles never come singly". The truth of this saying has been brought home lately—first; when in September I received official notification of appointment as deputy or assistant councilor of Marion county—secondly; when in November I was drafted to present a paper before this gathering—subject, "How a Deputy Councilor May Be of Service to the County Society". I have cer-

tainly a feeling of sympathy now, for the young girl who gave birth to twins, one light, and one dark—out of wedlock.

Whence comes this apparently new and obscure officer, and whither is he traveling?

Not doubt of the power and authority of the Council, but just plain woman's curiosity caused me to consult a copy of the by-laws of the Iowa State Medical Society, and learn that chapter seven, section two, reads in part as follows:

"Each councilor shall be the organizer for his district. He shall visit each county in his district at least once a year, for the purpose of organizing component societies where none exist, for enquiring into the condition of the profession, and for improving, and increasing the zeal of the county societies, and their members. The councilor may when advisable appoint a deputy or deputies to assist him in his work to carry out the requirements of this section."

Now the "whence comes" part is taken care of, and satisfactorily explained, but the query of "whither is he traveling?", is the real question before the house. As for your essayist, he is much in the North, and is desirous of being brought from darkness to light as no doubt are the rest of the profane.

Consultation of the councilors' reports as published in the State Journal of July, 1927, is quite interesting. These reports convey a lot of valuable information. Dr. Bowman, councilor of the eighth district, says, that in April, 1927, that at the request of Dr. Throckmorton, state secretary, which was sponsored by the legislative committee, he appointed a deputy councilor, in each county of his district. As they have been functioning at least six months, prior to my appointment, I feel that any county deputy from the eighth district, should be able to impart much information, and to give many valuable suggestions. It seems they furnished the necessary data, for the councilor in making out his annual report, and functioned with the legislative committee.

The condition of southern Iowa roads in the early spring and late autumn make it almost impossible for the councilor to fulfill "The duty of at least a yearly visit to each county", as provided in the by-laws. In this instance, the man's job can be delegated to the boy, and he can be instructed to "carry on".

What are the duties of the deputy councilor in relation to the county secretary? Should the latter serve in a dual capacity, or should the emoluments of office be divided between two in-

*Read before the Second Annual Conference of County Secretaries and District Councilors of Iowa, held in Des Moines, Iowa, January 12, 1928.

dividuals? Enlightenment on this subject is sought: Will some one please elucidate?

Now I desire to make a few suggestions, irrelevant, and immaterial as some of them may seem.

FIRST: POLITICS

Keep abreast of politics, and encourage your members to do likewise. Especially look after your state senator and representative. Investigate their voting records, on bills of interest to the medical profession, in the last general assembly, i. e., providing they are up for re-election. If they are new timber find out how they line up. If necessary send a boy in the person of the family doctor. This applies, both to the primary in June, and the election in November of the coming year. Then when the legislature is in session, see that the appeals made by the Medico-Legal Committee to communicate with the legislators of your home district, on this, or that bill are taken care of with despatch. A word from home as a rule bears weight.

In passing I wish to call attention to the original article entitled, "The Doctors, and the Law", in the Journal of the Iowa State Medical Society, issue of February, 1927. The inspiration that prompted this article, was, a so-called "Wonder Doctor", then holding forth at Pella. It is well worth re-reading. Particular attention should be paid to the last six paragraphs. With your permission I will quote what Mr. De Reus says.

"During 1921, when the Thirty-ninth General Assembly was in session, I had an occasion to be in Des Moines, and while there I happened onto a friend of mine, Mr. Garber, a young attorney, and the member of the house from Adair county. Wishing to appear interested in his work as a legislator, I asked him if he was sponsoring any legislation. His answer was 'Hell no, it keeps me busy trying to kill fool legislation'. I did not realize fully what he meant until I began to read into this subject. You will soon see that he was not successful in killing all of the fool legislation.

"That Thirty-ninth General Assembly went wild on certain phases of the Medical Protective Act. It decided that foot doctors needed a license, and an examining board, that osteopaths should be surgeons, and that chiropractors should be recognized. At this time I have no quarrel with that legislature for recognizing these various phases of the healing art, for men will differ as to the various schools of healing, and in each instance a license was required of the applicant based on some preparation, but this is my indictment against that legislature.

"After these various acts had been passed and approved, permitting these heterogeneous groups to follow their various callings under some state supervision, some fool legislator, bright lobbyist or ignoramus, having in mind the history of the law announced by the courts, or fearing that his special group had not been adequately protected in its calling, proceeded to throw a monkey wrench into the machinery. Some snollygoster, or a group of them, a few days before the close of the session, caused the words, 'Who shall publicly profess to cure or heal', to be stricken from the law, and the statutory definition of a physician and surgeon. By that act they removed the keystone from the arch, extracted the heart, and the teeth of the law, opened the flood gates for any grafter who professes to cure or heal, and subjected the public to any imposter.

"I want you to realize the seriousness of it. Formerly the definition was inclusive, now it was made exclusive. Formerly it included all who profess to cure or heal, now as long as one does not profess to be an M.D., surgeon, osteopathy, podiatrist, optometrist or chiropractor, he is free to go as far as he can in fleecing the public. In my opinion, a magnetic healer, or any of that stamp is absolutely free under the present law to do as he sees fit, and the public be, and is damned. By that one act, and the stroke of the pen in the twinkling of an eye, a magnificent bulwark, which the courts had been strengthening for more than three decades was demolished. Again, I say, that the flood gates were opened. It is up to you to see to it that the clause, 'Those who publicly profess to cure or heal', is re-written on our statute books.

"In 1924, our code was given a so-called revision, an attempt was made to compile and reconcile the existing statutes, in a few cases the statutes on a subject were rewritten or revamped. Title VIII of this code is entitled, 'The Practice of Certain Professions Affecting Public Health'. Under this title all of the then existing statutes on that subject were revamped, with some red tape and trimmings thrown in for good measure. I shall not attempt to go into the various phases of the present law, for the reason I do not want to be accused of stealing the other fellow's thunder. The substance of the law is the same as it was after the Thirty-ninth General Assembly in 1921. It has added means for investigation of law violations, provided that prosecution shall be directed by the attorney general and carried on by the county attorney. For violations a heavier penalty is added. It provides for injunction against offenders, as well as criminal prosecution,

but in my estimation, it has no more effect against a well advised quack, than a pop-gun at forty paces.

"To make my point clear by a homely illustration, the medical practice acts might be likened to a good old horse and buggy, which the legislature gave the people in earlier days. It was not the speediest even in its day, but when the people started in it they got there. The Thirty-ninth General Assembly decided, that the old horse and buggy were 'passe', so they proceeded to kill the horse, adding a few trimmings to the buggy, then when the 1924 code was made, and the old laws revamped, they thought it would be sufficient if they gave the buggy a few more trimmings, in fact when they got through with it, it looked like an automobile, but they forgot all about providing for any locomotion."

SECOND: SPEAKER FOR COUNTY SOCIETY PROGRAM

If within reasonable distance of Dr. S. T. Gray, councilor of the sixth district, invite him to present his paper on the "Basic Science Law", before your county society. Dame rumor has it that a bill for some such law will be presented before the next General Assembly.

THIRD: INVESTIGATION OF NEWCOMERS

Cultivate the habit of looking up the professional, and social credentials of newcoming physicians in your counties. Within the past few months, a new physician located in our county. It was a case of a small village without the services of a doctor. The progressive village commercial club appealed to Henry Field, to broadcast for one. He did. Within forty-eight hours the town bragged of its new radio M.D. After three months' residence, the doctor absconded, leaving numerous unpaid bills, in his wake. Our Society record on him showed that he was a recent graduate of Fort Leavenworth. This information had been obtained shortly after he had located, but for diplomatic reasons, nothing was said until after his sudden departure. Since this unfortunate occurrence, the town has secured a reputable physician, having procured him through a legitimate advertisement in the Journal of the A. M. A. His credentials were first checked up on by the county society, and found to be A-1, before the community would accept him.

FOURTH: THE A. M. A. DIRECTORY

Prevail upon your county society to keep a late copy of the A. M. A. directory. The officers and individual members as well will find it invaluable.

FIFTH: EDUCATION OF THE LAYMEN

I believe that the members of the profession, both as society, and individuals can accomplish a great deal in an educational way, and acquaint the laymen with what we are, and what we stand for.

With this thought in view, I desire to make a few recommendations for your consideration.

First: Why can't the Society have its meeting, or part of it, open to the public, and provide for a program accordingly?

Second: Why not as a Society, and as individual members, get behind such movements as good health week, cancer week, and the like?

Third: Why not back the school nurse, and encourage her in her efforts, and work among those of school age? Education of the children means better informed grown-ups later.

Fourth: Why not subscribe for Hygeia, and keep a copy in your reception room, providing you have not already done so?

Fifth: Why not more individual effort in educating our own patients in medical matters in our daily contact with them, being careful to be open minded, and reasonable if possible, and avoiding prejudice?

We as physicians, have acquired our ability to recognize the absurdity of the claims of the cults, and fakers through education. Therefore, how can we expect the general public to see the light, unless they have been made acquainted with some of the fundamental truths upon which the science of medicine is based?

SIXTH: MEDICAL SERVICES TO THE POOR

Has your county society solved the problem of medical services to the pauper poor? Marion county has at least, tentatively. The plan has been in operation for six years, and is as follows: First, we incorporated. Next we got in touch with the county board of supervisors, and they readily consented to advertise for bids for medical services to the poor. Before submitting our bid, the books of the county auditor were consulted, and a rough estimate was obtained, of the average yearly amount expended for the four or five previous years for medical services. On this basis we submitted our proposal which was later accepted. A contract was signed, and this procedure has been continued from year to year.

Our method of dividing the money is as follows. Each claim is made out on a uniform county claim blank, itemized, and endorsed by the township trustees, or city overseer of the poor. All these claims are filed with the county secretary, and audited by an auditing committee

of five members each year. The state and county society dues are first deducted for each member, also the sum of one hundred to one hundred and fifty dollars to be kept in the treasury for miscellaneous expenses of the Society. The balance is then prorated among the members of the profession in proportion to the amount of their services rendered. Non-members receive the same treatment as regards individual claims as members. New society members, must pay their initial state and county dues before their dues are remitted.

This plan has worked admirably. Differences have arisen, but they have been adjusted to the satisfaction of all concerned. Several members, who were rather inactive previous to this arrangement are now active.

SEVEN: THE CULTS

I am interested in knowing how the various societies are dealing with the cults. In passing I wish to mention a little incident that happened in our county. Two years ago in the face of an impending epidemic of smallpox, one of our local papers inserted in its news column a clipping handed them by a chiro, lambasting vaccination. In view of the serious situation, we local members took it upon ourselves to have an article written by one of our number in answer to the clipping, and published over the name of the author, with an added note of approval, by the officers of the society. The chiros then came back with several display advertisements, and many pamphlets denouncing vaccination further. However, the laity took more seriously to the article advocating vaccination, and a goodly number of those not previously immunized were vaccinated, and many favorable comments were made on our pro vaccination newspaper article. I truly believe that this case of fighting fire with fire, bore fruit.

To my own way of thinking the time has arrived for the medical profession to spread some of its own propaganda. What is wrong in acquainting the laity with our scientific progress, the years spent in preparation for our profession, the diseases that have been stamped out by research on the part of physicians? If these truths were as widely heralded as is the propaganda of the quacks, and cults, we would have nothing to fear.

The story of medicine and its accomplishments is a wonderful story in itself, and should be told. Some ethical and logical form of education should be devised.

True, every cult, and pseudo science in the

country fails from its own lack of textile strength, but the damage is done our profession, and can never be mended. As some one has said, "You have pulled out the offending nail, but the hole remains".

EIGHTH: COUNSELING WITH IRREGULARS

The State Society by-laws, chapter I, section 3, as amended at Des Moines Session, 1924, supposedly takes care of this. Within the past year however it has been brought to the notice of our county society that two Polk County Society members, and one Mahaska county member have been guilty of counseling with a Marion county osteopath of questionable character. The minutes of the secretary's books show that the president of our county society appointed a committee of three to draw up articles of protest in regard to these unethical practices, and ordered that a copy of these resolutions and articles be sent the members in question and in addition to the councilors of the sixth and seventh districts. To date the committee has failed to function, the chairman and one member being apathetic. However, we hope to get a new committee functioning in the near future, and at least slap the wayward brethren on the wrists.

We doubt very much if these accusations could be brought against these same society members in their professional dealings with cultists and irregulars within the jurisdiction of their respective counties. But why should they not play straight in outside territory as well?

NINTH: ADVERTISING

This paper was originally prepared and completed for presentation in December, the tentative date for this meeting being set for December 15th. Since the forms closed (apologies to printers' parlance) the matter of group advertising has been considered by our local society. By way of experiment we accepted the copy worked up by the energetic local editor and advertising solicitor of one of our local weekly county newspapers, and a display advertisement was published in the edition of December 29th, over the name of the Marion County Medical Society. I have here a copy of the paper and wish you to inspect it and criticize the venture either constructively, destructively, or both. (Paper exhibited.)

Understand this venture is merely an experiment and we have not mapped out any special or definite campaign for follow up ads.

Please note the news item in the first column on the left. This particular phase of the proposi-

tion was worked out by a society member. We figured it would add a little local color to our initial effort at group advertising.

The prediction has been made that with the completion of the hard-surfaced road program the death knell of the county society in the rural sections will have been sounded. The tendency will be for the physicians to attend the scientific sessions in the larger towns and the county organization either become extinct or a mere skeletal affair. Of course it remains to be seen whether or not this prophesy comes true. To my way of thinking good roads should have a tendency to make the county organization stronger, everything else being equal.

The concluding paragraph of an editorial in the February number of *The Journal of the Iowa State Medical Society* entitled, "County Society Meetings", shall be quoted as a conclusion to my remarks. Here it is.

"The practice of medicine in the small town districts is of necessity individualistic, that is, the doctors are general practitioners and constitute an exceedingly important group of men, not only as physicians but as citizens who feel a pride in their profession and also in the community in which they live, and receive honors, and recognition commensurate with their usefulness. In the spirit of fellowship as physicians and citizens it is a pleasure to meet together at stated intervals for the consideration of common interests. This feeling is not measured alone by numbers, but by the spirit of fellowship and service. If no papers are read, gathering around a well prepared dinner the doctors and their wives in social conversation give an outlook on life which is the foundation of our civilization. We have known of many small medical societies of most helpful men with the best human ideals. Do not, therefore, say that because we are small in numbers it is not worthwhile to maintain a society."

THE NEW BASIC SCIENCE LAW*

SAMUEL T. GRAY, A.M., M.D., Albia
Secretary of the Councilors of Iowa

People always have been and always will be sick. When they become ill, they look for some one to relieve and cure their diseases. Always someone has offered assistance. The demand for the help and the willingness to serve has produced certain persons in all ages who profess the practice of healing.

It was formerly a free for all, and any person could heal anybody in any way. It was only an individual affair. There have always been imposters, frauds and dishonest people, and this class has not been slow to take advantage of the sick and unfortunate for their selfish gain. Sick people have never been able, or capable of coping with the smooth ignorant deceptors.

In this advanced and enlightened age when knowledge and science contribute so much to the welfare and health of mankind exceeding beyond comparison anything of any other period, it would seem this knowledge rightfully used would mean perfect care and treatment for all the people. But the people are not benefited to near the extent possible. On account of the ignorance and dishonesty of those practicing healing, the mass of the people are not greatly benefited by the improved scientific means of treating disease. The sick are just now up against the hardest proposition they have ever had to deal with, and to know what and how to do for their best welfare. The practitioners of no system of healing have at this time the confidence of the public.

This is an age of increasing crime and of graft in business, and this spirit permeates the practice of healing perhaps more than ever before. Ignorance and dishonesty are so prevalent that many hesitate to consult any kind of a doctor. No system of healing has been able to keep graft out. And the people see so much bunk in all of them that they are driven to the new systems. If any one system has ever had the supremacy and lost its power, it has been from within and not from outside influences.

Professing to heal the sick has always been a good graft, and many have followed it for a livelihood. It has not been many years since the people became enlightened sufficiently to see the harm of everybody in every way professing to heal the sick. The practice of healing is now recognized as a public affair, and it is a well established principal of law, that any restriction may be placed upon it to protect the people and promote the public health.

The practice of healing is a profession which requires much learning and great skill. All laws regulating healing have been made for the purpose of protecting the people against incompetence, fraud, ignorance and dishonesty in the relief and cure of illness and injury. This would be simple if there was only one system of healing, but the laws of our state recognize different systems, and new ones are continually springing up.

*Read before the Second Annual Conference of County Secretaries and District Councilors of Iowa, held in Des Moines, Iowa, January 12, 1928.

There is no excuse for any law only as the public demands it. Those practicing healing do not want laws governing them. The people have been slow to realize that healing the sick and injured is the biggest problem of mankind, that healers are for the welfare of humanity, and that the human being does not exist for the selfish prey of any branch of healing. It is for the people to say how many and what systems of healing they want practiced upon them. The people are supreme.

Whether it is best to have many systems is not for us to say. The fact is, our state legalizes several, and it is for us to accept the situation as it is. The care of the sick, the prevention of disease, and the public health of a people mean much to their welfare and happiness. This challenges the people to protect themselves for their own preservation. The people can only get the protection they need and want by regulating all healers in the same way as regards to the essential requirements.

The same standard of education, and the same knowledge of the sciences which relate to the human being should be required. All engaged in the practice of healing are in the same business, and all people in the same business should be regulated by the same law. The principle of regulating the different persons in the same business in a different way is all wrong.

The practice of healing means the same; to heal the sick no difference what system, or means are used. The only just and satisfactory law must be universal and govern the person rather than the system. The same law can apply to every person to the point where he takes up his own particular system. This insures the public that ignorance is eliminated from the practice of any branch of healing.

There is a certain scientific training that is absolutely essential for every person who professes to successfully treat and heal the human being. It is fully within the rights of the people to make by law the requirements necessary for this training. In this talk we will recognize no cult or fad, but put all on an equal footing; the medicine cult, nature cult, bone cult, back adjustment cult, and every person who professes to diagnose, treat and heal the people of their diseases. No matter what human agency is used, every person must have this essential, scientific knowledge, before he is capable, or justified in healing the sick.

The human body is made up of many parts, adjusted by finer and more delicate mechanism, controlled by a complex net work of sensory

nerve filaments, a marvelous structure greater than anything ever conceived of by man, and only made possible by the master mind of the universe.

For any one to attempt to repair, to adjust, and to remedy the ills of this wonderful organism without knowledge of the structure, anatomy and the elements used in the human body would be the utmost folly. Scientific training in the basic principles and elements which have to do with this super-being should be required of each person before he should be allowed to use any means in treating and healing. It is strange this knowledge is required of those treating an animal, but not of those treating man. The public should, and is demanding this training for the welfare of mankind and in the interest of public health. This knowledge is not controlled or given by any cult or clique, but comes through the regular channels of our educational system.

There is a new program for regulating those professing the practice of healing. This program has been recently accepted by five states; Wisconsin, Connecticut, Minnesota, Washington, and Nebraska. They have adopted the "Basic Science Law".

The basic science laws of these states are much the same. They make the "Basic Sciences" the foundation for defining and regulating the practice of healing. This is the first time the act relating to the practice of healing has ever been on the right principle—making the same educational requirements for each person who expects to practice healing. It has been a fight between different systems for their life and supremacy. The people have gotten wise, and in place of fighting for some particular system they recognize only the welfare of mankind. It has taken a long time to reach this point.

The law defining "Basic Sciences", and defining and regulating the practice of healing includes an act to define the terms, "Basic Sciences" and "Practice of Healing", to regulate the "Practice of Healing", to establish a state board of examiners in the "Basic Sciences", and to prescribe the duties of boards for any system of healing.

The "Basic Sciences" are specifically defined to mean and include all matters pertaining to anatomy, physiology, pathology, bacteriology, chemistry, hygiene, and diagnosis of disease, so far as the same relates to the human system or mind as generally treated in each or all of said subjects.

"Practice of Healing" means, and includes any person who shall in any manner for any fee, gift, compensation, or reward hold himself out to the

public as being engaged in the practice of medicine or surgery, the practice of osteopathy, the practice of chiropractic, the practice of any legalized method of healing, or the diagnosis, analysis, treatment, correction, or cure of any disease or injury, defect, deformity, infirmity, ailment, or affliction of human beings, or any condition incident to pregnancy or childbirth, or who shall prescribe any form of treatment, diagnose, or treat any person for any infirmity of body or mind, or indicate in any way that he is engaged in the practice of healing. The basic science laws except certain persons: nurses, midwives, dentists, Christian Scientists, and some others.

A board to consist of five members is established and known as the State Board of Examiners in the Basic Sciences. This board is generally appointed by the governor. Some are chosen because of their knowledge of the basic sciences, and may not be licensed in any of the healing arts. They are mostly professors in the state schools. In Minnesota there are two full time paid professors, one practicing physician, one osteopath, and one chiropractic.

Any person desiring to practice healing shall furnish sufficient proof that applicant is of required age, has education equivalent to an accredited high school, is of good moral character, but is not required to disclose the professional college, or university he may have attended, nor the branch or system of healing which he intends to pursue.

This board shall make examinations in the basic sciences only, and a grade of 75 per cent in each subject is necessary to receive a certificate of registration in the basic sciences.

No examining board for any system of healing shall admit to its examinations or license, or register any applicant for examination by such board unless such applicant first presents to it a certificate of registration in the basic sciences. In Minnesota any such board shall not require of the applicant another examination in any of the basic sciences. The basic science laws in the states which have passed this act go into all the details and provisions which regulate the practice of healing as they see fit, but all have practically the same preliminary preparation.

The day of the long haired, ignorant imposter is past. The things of this age are done by the educated, prepared and skilled in their science. There is no mystery about the art of healing, no one person has a monopoly on healing the sick. The anatomy, physiology, pathology, cause and diagnosis of disease of the human being are plain facts open to all who will acquire the knowledge,

and only the most ignorant can possibly believe that any person has the right, or can heal any one sick without a full knowledge of these subjects.

The people demand trained workers in business and national affairs. Why should they consider ignorance to have any part in the health of the people which is a great economic problem, and the biggest asset of a nation?

This act to be successful must treat all alike, each one must be qualified in all these sciences, to be able to take up any system of practice. This is entirely scientific, and there is no concern about what system is in mind. This makes an educated person out of every one applying to practice healing. He must have the equivalent of a high school education. He must have much more than this, for no high school graduate could pass a basic science examination.

Each person would need a thorough knowledge which could only be acquired in an institution well equipped. He would have all the essentials necessary for the taking up of any system. I think the Minnesota law on this is good; that no licensing board of any system can require another examination in any of the basic sciences. Some have suggested that the boards of the different systems could examine again in these things. Whenever this is done, the whole thing is spoiled, for then you acknowledge that a greater knowledge of the basic sciences is necessary for one system than for the other, and you have accomplished nothing. You can not differentiate between any up to the point where they take up their own particular dogma.

The Basic Science Law is creating considerable interest as people know about it. The basic science act is not a practice act, but is a foundation on which to build a practice act. The board of examiners of basic sciences have no part or connection with the different professional boards.

In our state, those wishing to profess healing are examined by three different boards. This allows a different standard in the basic sciences by each board. This is not in justice to the public, for all who practice healing need the same training and knowledge of these sciences. It is a discredit to any system to ask, or want its practitioners to lack this essential knowledge.

This act can not have anything to do with the standing of the present practitioners of any system, but a start must be made sometime to clear up this question of who is qualified to take up healing, and in a few years the standard of all systems will be raised, for all the new practitioners will have equal qualifications. In twenty-five years this will be of untold benefit to the

people. This legislation is for the future public benefit.

The great purpose of this act, and what puts it above all other healing acts is the fact that a certain standard is established, and all who want to practice healing—without any exceptions or reservations—must be subject to the same qualifications. This is good sense now, and will be just as good fifty years from now.

Note the difference between the basic science act and the practice of healing act. One is permanent and established because it is entirely a scientific act. The other is the professional, or the act of healing. There are now perhaps, a dozen different systems, so it necessarily implies the practice act will be subject to change in the same system, and as to the different systems.

Some systems will be eliminated, others may be recognized, but not many new systems will spring up with the standard qualifications. Many kinds of healing are already extinct. This will revolutionize the entire practice of healing in twenty-five years. Those practicing now who have not this knowledge will then have passed out, and each one taking up the profession of healing will be capable of selecting any system, and he will use better judgment in his selection.

So many taking up healing now are so limited in their knowledge that only the inferior systems are open to them. The person with a certificate of registration in the basic sciences will seek the most scientific course giving the best preparation for practicing the art of healing. The inferior and ignorant will be eliminated.

The basic science board knows nothing about the applicant as to his knowledge or training, or what he is going to do. The one principal thing to keep in mind is, that this law to be practical must qualify each person in his basic sciences sufficiently so that no other board of any system has any comeback as regards other examinations, or make additional requirements before taking up their respective branch of healing.

If the basic science examination is not final, it is folly to spend any time with it. This law is to fit all persons equally before they can take up their particular practice of healing. There is no interchanging in these two acts. They are separate and distinct. Some states have apparently satisfactory practice acts. Kentucky and Texas have single boards, and New York thinks it has a splendid law.

In all of these states the practice of healing is controlled by one system, and in each state it is a continual fight, and great expense for this system to hold supremacy. No system of healing

ought to bear a heavy burden of expense to keep the practice of healing safe for the people. It is the duty of the people themselves to do this job.

Under the present conditions of the practice of healing, a single board implies that it is satisfactory to a particular system which is powerful enough to control the situation. A single board of examiners does not remedy the present evil. It only keeps up the fight indefinitely. It would be impossible to get a single board of examiners in Iowa, for no one system is strong enough to make this effective. Our state has many boards and the sensible legislation is to make equal qualifications for all. Then, when any system takes a person of sufficient education and good moral character, there should be nothing in this system to demoralize and make of this person a dishonest and disreputable practitioner. The only difference in all practitioners would be the difference in the means used for healing. Then it would be up to each system to render real service in the art and science of healing, and up to the people to use common sense and good judgment in selecting the best system. There would be no fight with or against anybody. Each system would survive or go down through its own work. The worthless system or systems would soon pass out. They would be eliminated at the very beginning. The only proper place to stop any evil, or infectious disease is at the start, and not after it spreads over the entire country. The people would fare well or ill according to their own desire.

The law can not endow people with common sense to always select the best system of healing any more than it can put honesty in all those professing to practice healing. There is a personal equation that comes into the healing and caring for sick people, both as to the patient and the healer, which no law can either put in or take out. There are some people who will not take good sound advice when sick. They are always looking for the other kind, and as yet they have never failed to find it.

The basic science laws are new and have not had time to show many results. In fact, the results of this law relate to the future rather than to the present. It puts this question on a firm foundation for future progress in the art of healing. It will make better practitioners of healing in all systems.

It is due to the good judgment of the people whether they choose the best means or not. They are just as free to choose any system as they are to choose any individual in any particular system. This law does not take away any rightful liberty

from the people, but safeguards and protects them. No conscientious person, no cult, or sect of any kind can take exception to this forward program for the welfare of humanity.

This is the best law yet proposed to regulate the practice of healing in the interests of the people. Iowa needs this law as much as any other state on account of so many of our people preparing themselves for "Doctors", and many of them taking up this practice without adequate knowledge of the basic sciences. The state is already a part and a partner in each system recognized.

The public has practically taken over the entire education of medical practitioners. If this is best for one system, why does not the state take over the entire education of every branch of practitioners given recognition?

This would take the whole matter of training those for the practice of healing out of private interests conducted for financial gain. No unscientific system of healing would last long if it were not that those preparing practitioners were making money by graft. There is much waste of energy and money carrying on many systems. The people are paying for all this financially, and in a much greater way by receiving inferior treatment, when they should avail themselves of the very best in each system.

This is an age of efficiency, consolidation and merging all great interests. The people need an awakening and a new vision of the whole matter of disease, sickness, healing and the great importance of health for each individual, and then they will sometime be wise enough to merge all the branches into one definite broad system which will meet all the demands and needs of a people for their best welfare and the public health.

The medical branch of healing does not object to laws justly regulating them, nor do they want any laws for their own special benefit. The economic function of a medical society is a most important one, affecting the welfare of the profession and of the public.

The physician can no longer keep out of public affairs. There are so many things about public health, welfare work, industrial medicine, and the tendency to state medicine, that the physician should help in securing the enactment and enforcement of sane and just laws, and in defeating any which would be injurious to the morals and health of the people.

All members of the society should be interested in the problems of economics and public

health. A state society should give all information in regard to these to its membership, so that they can be informed and recognize their individual duties, and not leave these problems to organizers and politicians.

The committee on public policy and legislation is one of the most important of the State Society. The individual physician has not been sufficiently interested, nor has the membership as a whole taken much part in politics. Much pernicious legislation has been stopped at the beginning, but always some gets through which afterwards proves injurious.

The Council of the Iowa State Medical Society expect to take an active part in the legislative phase of health. The profession will be well organized by districts, and each member will be kept in touch with proposed laws of interest to them, and it is hoped no law will be passed without their knowledge and an organized effort for or against it.

We hope the members of each county society will pay attention to the politics of their county, and endeavor at both the primary and the election to keep out any person adverse to the best interest of the public health.

Organized effort of the profession will do much towards proper public health legislation. There is an assistant councilor in each county who will keep in touch with the state councilor and with the aid of members of the local society will look after the legislative interests of the society in his county.

The Basic Science Law is fair and just to all systems. The people are wise enough to see the virtue of this law, and know that anyone who is able to diagnose and heal their sick must have this knowledge. The attention of the people and the physicians of Iowa should be called to this law, and a basic science act should be considered for our state.

Favorable reports are heard of this law. It is logical and applicable to every state. From the laws now passed, and from each state's experience with the law and with the improvements which could now be made, a model law could be formulated. Iowa should follow the lead of these other states, and draft this model law.

TAKE DUE AND TIMELY NOTICE

Your 1928 membership card will be your mark of eligibility to register at the Seventy-Seventh Annual Session, Cedar Rapids, May 9, 10 and 11. Have you paid your 1928 dues to your local Secretary?

DISCUSSION OF DR. GRAY'S PAPER ON
"BASIC SCIENCE LAW"*

HENRY ALBERT, M.D., Des Moines
Commissioner, State Department of Health

There is no doubt in my mind but that it is highly desirable that all who practice the healing art should have a good foundation knowledge of the subjects ordinarily referred to as the basic sciences.

There is, however, some question as to whether it is better to provide for such by means of a special basic science board with separate boards for medicine, osteopathy, etc., or to have one composite board giving examinations in all subjects except those pertaining to treatment and either omitting the subjects of treatment altogether as is done in some places or having the examinations in treatment given by special representatives.

I believe it advisable to postpone the consideration of providing for a basic science law for at least another two years in order that we may learn from the experience of other states as to how it is working out. The states which have to date adopted the law are meeting with certain difficulties. Among these problems that are causing difficulties may be mentioned the following:

1. Shall the basic science board be provided with special legal machinery to enforce the act? The legal machinery which we now have is not sufficient to adequately enforce existing acts.

2. Who shall constitute the personnel of the basic science board? Those of recently passed laws do not correspond with those suggested in the model law.

3. Shall there be any duplication of examinations given by the basic science and the regular board of medical examiners, etc.?

4. If so, will it not lead to misunderstanding? If not, should the members of the basic science board not be well qualified and if sufficiently qualified, why have any other boards?

5. Shall the basic sciences include the subjects of pathology, bacteriology, hygiene and diagnosis? If not, have not some of the essential and really basic subjects connected with the healing arts been omitted?

6. Many persons take the examinations in such subjects as pathology, bacteriology, hygiene, and diagnosis without having had an adequate course in these subjects? If not, how much good will

the basic science law do? If so, why not specify in a law that all candidates for examinations for any of the healing arts must have completed the courses in question as given in the State University of Iowa or in some other institution of similar standing. In this way we can accomplish practically the same result without adding a new board.

7. How shall questions of reciprocity be solved? The passage of the basic science laws in Nebraska have made it necessary for these two states to cancel their reciprocal agreements with Iowa and all other states which do not have such a law.

The points raised are not to be interpreted as indicating that I am opposed to the basic science law. I do, however, believe it to be advisable to postpone any attempt at securing the passage of such a law for at least two years—at the end of which time we will know better than we do at present, how effective the basic science laws are. If, at that time, it seems advisable to consider the passage of a basic science law, we will know much better than we now do, as to how such a law should be framed.

COUNTY MEDICAL SECRETARIES*

MARK C. JONES, M.D., Boone

Mr. Chairman and Gentlemen:

I had not expected that the honor of representing the secretaries in this meeting would come to the secretary of the Boone County Society. I received a letter from the chairman and secretary of the councilors a short time ago advising me that I had been appointed an assistant councilor for my county and telling me the duties I would have and asking me to write a letter making any suggestions I thought might help in the work of the members. I replied for I felt that their letter had done every thing but confer a Croix De Guerre on all of us and kiss us on both cheeks. I was then asked if I would please represent the secretaries on this program.

The county society which is the smallest unit in the organization to which all members of the medical profession should belong may be a means of helping the community in which it exists, or it may be hibernating all of the year except the date on which the annual election of officers and payment of dues is held. The people may never know that such an organization

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exists but if the members carefully scan their accounts and pick out the names of those who have refused to respond to statements sent out, and list these names in a neat book with nothing but the name and a number representing the name of the doctor who was not paid for services rendered, and when this delinquent calls for help you tell him that you understand the bills of Dr. A., Dr. B. and Dr. C have not been paid, and advising him that when they are paid you will gladly help him, you have advertised yourself as a member of a good organization.

The hospital, located in your county should be a place of interest to all members and whether it be a county hospital, a city hospital or denominational in character, it should be supported and helped by a county organization. Every county in Iowa should have a hospital but unless the county society is alive and active the hospital will not flourish, and the patients who need hospitalization will go some place else, and the local paper may print an item something like this: "Mrs.— who is seriously ill was taken to the hospital at——and is now greatly improved." The laws of Iowa provide for a millage tax for the support of farm bureaus and also one for support of county hospitals. Why not the one as well as the other? Both are necessary and worthy of the support of the people. The members of county societies can by helping the county nurse or school nurse accomplish much good by immunizing the children against contagious disease and the school nurse can carry out a campaign of this kind if backed up by the members of the Society. A school nurse in a city not one hundred miles from Des Moines started such a campaign and put it over not only in the city school but in the county, and the result was the immunization of over 60 per cent of the children of the county against diphtheria. An attempt to accomplish the same result one year earlier was a failure due to the fact that the rub out disease, and snap spines into place, said it was not the thing to do and they were the loudest talkers. This same nurse said she was leaving at the end of the school year because her salary was not what it should be. A petition from the members of the society to the school board showing what the nurse had done, and the pay of nurses in similar positions over the state resulted in a raise of salary and the retaining of a good nurse who knew her work, and the families in the schools. She has since proceeded to see that the children were vaccinated and now 65 per cent are immune to smallpox, and the old bugbear of the dangers from vaccination has been exploded once more.

The social service worker and the county health unit are necessary to the welfare of the people, and legislation making it possible to have both should be of interest to the members of all county societies.

At a recent meeting of the medical societies from Story and Boone counties which is to be made a part of the program of these societies and a meeting held every two months, "County Health Units" was the subject of a paper by Dr. Wallace, and at that meeting the motion to indorse county health units was carried and a committee of three from each county to investigate such a unit was appointed. These joint meetings of the two counties are for the purpose of creating more interest and securing speakers that we would not feel justified in asking to speak to a society of twenty or twenty-five members.

Dr. Johns was another speaker on this program. He is from the college hospital at Ames and gave a very excellent paper on acute poliomyelitis.

The Sheppard-Towner Clinic still exists in Iowa. A short time ago a mother in my town called me and said she was the president of the group representing pre-school age children and they would like to know what the county medical society would think of holding a Sheppard-Towner Clinic for pre-school age children. After talking a short time I found out that what they wanted was an examination of the children of pre-school age and that if they could have a card showing how each child scored they would be perfectly satisfied, and they thought the doctors at home could do this as well as some one they had never heard of before. The mothers are satisfied and if there is anything wrong which the doctor discovered in this examination the doctor who sees the child can correct it or advise the mother what to do. If the United States together with the state of Iowa must give away money in this way why not pro rate it among the counties to be used for some poor mother who expects to be confined in a place where a respectable Poland China would not make her nest, or help some poor child who has been selected by a physician who has seen it for more than twenty or thirty minutes? When the members of county medical societies make the slogan "No diphtheria in 1930" a reality; when the people come to realize that a placard for smallpox is a disgrace to the community and that most other communicable diseases can be controlled by proper methods, we will have accomplished a worth-while work in the community in which we live.

The clubs and all organizations are ready to help, and are investigating the ways and means of helping the children of the state to be better and healthier men and women. Why should we wait until the agricultural committee in the legislature frames the laws which they think will be suited to the wants of the people and pass them while we repose peacefully?

Marshall county seems to have a good idea in the way they handle the poor; each member of the society promises to look after any call that comes to them from any one who is a county charge. The money is paid to the secretary by the board of supervisors and is then used for the payment of dues of all members in the county, state and American Medical Association. They do many other things, they have a meeting every month which is preceded by dinner and if there is any expense connected with the meeting the treasurer pays the bill. I believe it is satisfactory and could be adopted by all county societies.

Dr. W. C. Rappleye in a commencement address to the Women's Medical College of Pennsylvania has the following to say in regard to violating health agencies.

Another question which has a contact with some of these matters is that of the increasing activities of voluntary health agencies and of governmental health organizations. The activities of these various health and social agencies have been extended considerably into fields in contact with the private practice of medicine.

Many physicians, moreover, are active in these organizations and it is interesting to note that more than 15 per cent of the recent graduates in medicine are in full time salaried positions, and that an equal number are on part time salaries.

This is the age of prevention, not only in health work; but in all fields of endeavor.

The medical profession is rapidly grasping the significance of preventive medicine in relation to individual practice, and every sign at the moment indicates that there will be a marked extension of this type of practice. The program cannot see its full fruition without the active and sustained leadership of the medical profession. It opens to the practitioner wide fields of usefulness and opportunity. Indeed, it is likely that within a short time a large part of the practice of certain physicians, as one sees it already developing in pediatrics, will be concerned with the preventive aspects of medicine.

These are several of the problems which are engaging the attention of the medical profession. They indicate, in a rough way, the dependence of

medicine in part on economic and social factors and on intelligent public opinion. Not only in relation to the purely individual problems of medicine, but with an important responsibility for interpreting the truth of health and of science to the community in which we live. Our responsibilities as citizens have only been extended.

We have great opportunity for courageous leadership in individual as well as community health work. Medicine has become essentially a cooperating agency, and its ramifications make the task of the physician more difficult, more interesting and certainly more essential in community welfare. There is no short-cut to real success, nor is there any secret about it. The same elements which have contributed to success in former generations will undoubtedly apply in the future, and they are only the simple truths of fundamental honesty, of hard work, of unselfish service and of an unfaltering loyalty to the fine traditions and noble heritage which have given to medicine a continuity through the centuries of the past, and a present solidarity the world over which is unknown in any other field of endeavor.

CHANGES IN OUR SOCIAL SCHEME OF LIFE, AND SOME PROBLEMS RESULTING THEREFROM*

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"Forecasting the future is one of the common sports of the present day."

In this mad dash and whirl for something new, something more thrilling, we are told by some that we will be consumed by our own creations. The forces of action and reaction will come into play. Progress will be followed by retrogression. It seems to be a question whether or not the pendulum has already begun to swing backward as far as moral and social problems are concerned.

"One need go back but a few years to get completely out of step with life as it is today", and what has been the net result of these changes?

Our social scheme of life has undergone a great change during the past twenty-five or thirty years. From the point of view of the social worker, it would seem that increase in population, the automobile, the movies and equal suffrage have been the greatest factors in bringing about these changes.

*President's Address, State Conference of Social Work, Council Bluffs, Iowa, October 23, 24, 25, 1927.

"If we go back through the centuries we find that two acres of cultivated land were added for each increase of one in population. This would indicate that as we reach population saturation, the future will be regulated by the increased production of foods, via more scientific agriculture and by the introduction of diets. It is only possible that we shall eventually find that birth rates and death rates are secondary matters, and that they will be determined by such economic considerations as an adequate supply of food."

"The mathematician can make figures show almost anything, especially when he employs the factors of time and compound interest. It is folly to take today's population totals and then compound these figures at a prescribed rate of increase for years ahead. If we do this and also allow for the continued extension of the span of life", which the medical science is responsible for, "we discover that the human population of the earth in a century will total about 14,000,000,000 people. The United States alone will have upward of 1,000,000,000 inhabitants. Looking forward a few centuries in the same way, it is evident that very soon there would not be room enough on the lands of the earth for people to move about freely." Long before this condition prevails, however, the old law of the survival of the fittest will begin, to some extent at least, to regulate population.

"There is no rule or law for determining how fast population will grow. The rapid increase of human life in our own country has been probably due to scientific achievements, the developing of transportation and the occupation of waste lands." There is a limit to at least one of these factors—waste land—and it is a question how far the other factors will go in offsetting the limitation of the waste land. Right now in one of the oldest countries of the world—China—the national problem is nutritional. However, the social worker knows that the increase in population we have been experiencing has brought about problems for him to solve, especially where there is an industrial depression, or even a partial industrial depression co-existent.

"The population of any country can be divided into two groups, viz.—the good mental stock and the poor mental stock. Materialism does not oppose the lessening of the ages that beings live in the scale must be guided by those who are fortunate in being higher up in the scale of mentality. The 40,000,000 wage earners of the United States lose nearly ten per cent of their time on account of sickness, yet they spend six times as much for

fire protection as they do for health protection; and of this great army of people in America, more than 500,000 die each year between the ages of forty and sixty from old-age diseases that are largely preventable." This, therefore, is a fertile field for social workers and social organizations.

The installment debt, now said to be in excess of \$4,000,000,000 is another economic problem of this age. I know of no other economic problem so important and pernicious as this installment plan or system. The small wage earner, with his well developed desire for the pleasures of this life, cannot resist the temptations of the "dollar-down—dollar a week" installment plan, and he succumbs at the expense of his wife and children, to say nothing of being placed in a position where he cannot pay his just debts.

The other day an insurance man of Des Moines told me the following incident. In the course of the day's business the papers came through for the insuring of an automobile that had been purchased by a wage earner on the installment plan. The insurance papers were made out and the bill sent to the wage earner who purchased the car. The next day he came into the insurance office and very indignantly wanted to know why he was sent this bill as he hadn't taken out any insurance. He was shown the papers he had signed by which he agreed to pay for insurance on the car to protect the original owner. He said he didn't understand that he had to do this. Then he said he could only pay \$5 down on the insurance bill and promised to pay the balance of the \$20 in monthly payments of \$5 each. The insurance man gave him a receipt for the \$5 and then told him to sit down, as he wanted to talk to him. The conversation developed that he worked as a laborer in one of the large factories of Des Moines at \$110 per month when he worked steady, but his work was not steady. He had a wife and three children to support. He paid \$20 per month rent. The insurance man told him he was curious to know where he got the \$50 the sales papers showed he paid down on the auto, and the man said he was ashamed to say that he had mortgaged his furniture for it. In answer to the question, the man said he did not own a garage, but expected to pay \$5 per month garage rent.

With pencil and paper the insurance agent showed the wage earner that he could not run the car for less than \$25 per month and added to this, \$20 house rent, \$30 monthly payments on the car, \$5 garage rent and \$5 each month for four months, at least, for insurance, to say noth-

ing of interest on the \$50 mortgage, he would have just \$25 left each month to feed and clothe his family, which was impossible for him to do. The wage earner said he knew that now and that his two oldest children were out of school the past two days because they didn't have shoes, and he didn't have the money to buy shoes for them. Now this is not an isolated instance; it is rather the rule and every one of you social workers here present in your case work investigations have met with many just such instances as this. Certainly there is "something rotten in Denmark", but what are we going to do about it?

Will your purchasing of shoes for the children in the case just cited correct the conditions? Will your purchasing of groceries for the family or paying their house rent set matters right? Certainly the children must have shoes; they must have food and they must have shelter, but how far do you ever stop to think, toward pauperizing this family do your good samaritan acts go?

To make matters worse, this man cited in the case above, worked in a factory where they assembled a well known make of automobile. Though I am told the officials of this factory denied it, I was convinced from talking with many employers of this assembly plant that they were virtually hounded by their bosses to buy a car on the installment plan of the people who made this particular kind of a car. If they purchased any other kind of a car, they were discharged forthwith, and it was common knowledge among the employes that those who didn't have a car were the first ones to be let out in case of a reduction in the number of employes.

While I am on this subject of economics, I wish to state that I do not agree with the exponents of the belief that we are not trustees of tomorrow. They point out that we should be guided in our business operations not by what is theoretically possible but by what is economically justified at this very moment. I am not so sure that we have any right as individuals, or as groups of society, to contract large debts for our future posterity to be burdened with by taxation or otherwise. Understand, I am not against reasonable and needed improvements. There is a sensible limit to these things. The taxes of this state and country at large are increasing so rapidly that they are a heavy burden to many now, and at the present rate, soon will be to every one who is a tax payer.

During the war every one was keen for everything that spelled economy, but not so since the war. "There isn't any excuse for our neglecting

to remedy the present waste taking place on every side", from the lowest wage earner on up to the top of the heap. One of the needs of this country is a revival of economy and saving; an organization of visiting housekeepers to go into the homes of the wage earners to advise and direct the housekeeper in managing to live and keep within a budget. Instead of advising wage earners to purchase automobiles under the installment plan, we need advisers in every factory advising the men against such purchases.

"It is now estimated that 2,700,000 families in the United States each own two automobiles; at least they have an equity in them. Who would have guessed such an outcome ten years ago?" The automobile is a blessing to some and I think you will agree with me when I say that it is a curse to many others. In order to "keep up with the Jones'" everybody else has to have an automobile, and an automobile they get, irrespective of whether or not they can afford it, the time and money they waste with it, what they use it for, how many debts they owe because of it, or how many times they are killed by it. The road house, and secret out of the way places are brought nearer by it, and many a pure and innocent girl and boy had their start down the moral grade in it. What we need in this country today is fewer automobiles and more full time parents.

Equal suffrage and the things that go with it have taken the woman away from the sanctity of the home. Understand, I am not against equal suffrage. I am for the women, God bless them, and I believe that they have as much a right to the ballot as the man. However, this movement has brought about certain problems which we must recognize. One of the things that has come out of the equal suffrage movement is the demand by the mothers that their girls must have just as much freedom as their boys. To my mind this is a sad mistake. The mothers do not seem to realize the great difference there is in the two sexes. Their hopes, their joys, their fears, their passions are all different. The individual sex cells are vastly different, the male being very active and the female passive. Therefore, it would seem that providence intended there should be this difference in the natures of the two sexes. The female is weaker physically and stronger morally than the male.

"Familiarity breeds contempt." By the closer mingling of the two sexes today it is quite apparent that the female is not elevating the morals of the male, but contrariwise the male seems to be dragging down the female to a lower moral standard. Chivalry is fast disappearing. As the

female of the species, both married and unmarried, are increasingly taking the places of the men in the shops, the offices, etc., they are "elbowing" the men, not only out of their former positions, but out of their way along the crowded streets. The many nice courtesies by the male to the female such as tipping the hat, e. g., are becoming rather uncommon. There have been many gains by these radical changes in our social scheme of life, but there have also been many losses. You will have to weigh these gains against the losses and judge for yourselves the net results. Perhaps it is too soon to pass judgment in the matter and time only will tell the true story. At least, some very important problems have resulted which demand our thought and study because out of it all have come tremendous influences which must be taken into consideration as to their effect upon society in general and the environment of the developing child in particular.

The oncoming generation seems to live for thrills. Each new experience seems to create a demand for newer and greater thrills, and where is it all going to end?

Calvin Coolidge has been given credit for saying, "In these days, children get about what they ask for, and not what the wise judgment of their parents should dictate. Their pockets are filled with money and out they go to purchase pleasure and thrills, all the pleasure and thrills their easy money will buy. The taste for pleasure and thrills is formed as the taste for thrift and work is killed. Later on, in the natural development of things, the taste for pleasure and thrills becomes so strong that it must be satisfied at any cost. If crime has to be resorted to, that price is paid."

"An era of prosperity (such as we had during the World War) very often is like a ray of the sun, that the least obstacle can interrupt. It is a time when the fires on many altars go out, when folks let go the bridle, when a minimum of attention is given to the mending of faults, when everything is on a grand scale and we depart from the fundamentals of earning and saving and good moral living, and when the curtain is drawn aside there is disclosed a hidden character represented today, to some extent at least, by our toleration for dirt on the stage, on the movie screen, in literature, and even in some of our daily newspapers. The present time is to my mind an example of such a condition. Even materialism knows that when earthly goods are permitted to rise as high as our hearts they begin to bury us alive."

Some deep thinkers and writers tell us that the United States today is facing one of its greatest problems—citizenship; that our pressing and most important business today is the development of a loyal citizenship, which means the doing away with such things as class hatreds, etc.

The answer to this problem is the American home. It has been the American home that has made America great, and it must be the American home that must keep this nation great.

The home is the unit of human society and anything that lessens the sanctity and integrity of this unit tends to lower the social standard of our whole social scheme of life. The home life in America has undergone as radical a change as things outside of the home. The old time family fireside council is a thing of the past. Picture the family of thirty or forty years ago; the father, mother and children all at home in the evening, sitting around the dining room table under the glow of an oil lamp, (I think it is a hanging lamp), the parents listening to the problems that come up in the lives and experiences of their children and advising and directing them in their reactions. Probably they are eating pop corn balls, too. Later, the oldest daughter will play a piece or two on the organ, perhaps there will be a song or two, then evening prayers are said and then to bed. Contrast this with the present day American home. I don't have to describe it; you all know the picture. The boy or the girl or both, if there are any children in the home, are probably joy riding. Perhaps the father and mother are attending some social function. The cat and the dog and the canary are probably at home and the grand piano is silent and neglected. Now, I am not old fashioned, and I don't want you to think that I am of the opinion that the world is going to the bow-wows. I am simply trying to show you that tremendous changes have taken place in our social scheme of life; changes that have brought about resulting problems to be solved. Of course, I expect them to be solved and the country and the human race saved by your solving them.

Civilization travels on little feet. The boy and girl of today is the man and woman of tomorrow, and we should be exerting every effort we possibly can to fit the children of today for the responsibilities of tomorrow.

Dr. Thome of Boston points out that young children because of their plasticity, suggestibility, imitateness, and love of approbation are very susceptible to training. Because of this the child's personality can be moulded and remoulded

for good or bad, and his future adult personality will depend upon his training during his tender formative period of life.

The other day I read the following:

"Dear Parent: What kind of a parent are you?"

"Your child's whole future depends on how you answer this question—and so do your own comfort and happiness!"

"For your child will be largely what you make him—a joy or a nuisance—a source of pride or of shame—healthy, ambitious and well mannered or underdeveloped and ill-tempered—depending on the way you rear him.

"Parents are going to be rewarded or penalized straight through the years for the way they deal with their children."

Now, this is a strong indictment, but it hits very close to the mark, if it isn't a bull's eye.

REGARDING MENTAL DEFECTIVENESS

In using the term mental defective, I use it in the broader sense which includes all deviations from normal, and not only idiots, imbeciles, feeble-minded and the insane.

As a result of many surveys it has been found that 20 per cent of our school children in this country are mentally defective, and this percentage is rapidly on the increase. Two-thirds of this 20 per cent are due to heredity and one-third due to environmental causes.

Let us analyze these two groups briefly.

First, the group of mental defectives due to heredity. The following is a portion of a paper by Dr. Ravenil, professor of preventive medicine, University of Missouri, read at the National Conference of Social Work at Denver in June, 1925, entitled—"Is There a Conflict Between Social Welfare and Public Health?"

"Both social welfare and public health have the same objective, the saving or conserving of life, and what has been accomplished? Probably the greatest accomplishment of both these agencies combined has been the reduction in death rate, especially during the first five year period of life. It is now one-third of what it formerly was. Viewing the matter in one way, it seems that we have survived because of our intellect for conserving life. However, it is a well known fact that parents of long life beget children who are most apt to survive the first five years of life. Therefore, longevity may be considered as inherited. Constitutional fitness is inherited, and it is believed by some that infant mortality is governed by natural selectivity, but social welfare and public health step in with their

intellect and function in the defeat of natural selectivity.

"Instead of the survival of the fittest of the ancient Greeks, all argument today is in favor of the saving or conserving of life. When we study this question from the standpoint of economic welfare, it is thought by some to be a question whether or not any good will come from our special efforts in the expenditure of time and money in the saving of the lives of the approximately 800,000 to 1,000,000 in the United States today who are mentally defective. If this group of mental defectives, with their rapid multiplication is a menace to this country, what is going to be the outcome of our efforts to conserve their lives?"

A professor of history at Harvard University is said to have made the statement that "this country is headed straight for a fall; not because of licentiousness, but because of mental defectiveness, and the optimism of the people of the United States in the face of this is appalling."

Now, I don't believe conditions will become as bad as that, though it seems to be a fact that the good mental stock of this country is not reproducing its kind at anywhere near the rapid rate that the poor mental stock is.

This question does not seem to be confined to this side of the Atlantic ocean, as Professor E. W. McBride of England, in giving a lecture on this subject at the annual conference of the Educational Association in that country this year stated that "a civilization was not necessarily immortal, and if they went on playing the fool, encouraging the growth of the less fit part of the population and penalizing the more fit by the support of the less fit, our civilization would eventually go under."

Very little can be done to improve the mentality of this hereditary group, but they can be picked out, classified, and directed in their education along the lines of work with their hands instead of with their heads, so that they can become respected, self-supporting citizens and take their place in our social life. It is pathetic to see children of this group in school where an attempt is made to cram knowledge into their heads and forced through grades beyond their mental capacity. This discourages them. They do not have to be put in a corner with a dunce cap on their heads to make them know they are not keeping up with their classes. They are virtually forced into truancy and delinquency. You will find them down the alley with the gang, delinquent; eventually they reach the courts and are criminals.

A child of this group of the mental defectives cannot be trained or fitted for the professions or any occupation requiring mental work any more than you can drive a square peg in a round hole. Any such effort with them results in misfits in the field of human endeavor. On the other hand, if they are trained to work with their hands, they are happy, contented, industrious and successful in life.

As to the other group, the one-third of the 20 per cent of mental defectives where the cause is due to environment.

The child's environment is made up of all its activities and contacts: the home, the school, the recreational, the church, etc. Though all these activities and contacts are important, obviously the home is the most important, because the child spends or at least should spend, most of its time during the twenty-four hours of the day in the home, and all the factors are or should be under the control and direction of the home.

Oversolicitude, interference or relatives, special likes and dislikes, favoritism, fault-finding, bad examples, pampering, lack of discipline, are all positive factors which cause mental deviation in the child.

A vicious habit, unchecked, and well along in its development, is just as difficult to cure as a physical illness, if not much more so. Parents do not recognize a mental illness, and if they do recognize it, they are prone to ignore it.

A parent would throw up his or her hands in holy horror at the thought of allowing their growing child to eat a meal from the contents of a garbage can because they know the child would be quite likely to develop some serious illness as a result; yet the reading of trashy books and other printed matter from the garbage can of literature by the developing and imaginative mind may result in a mental illness that is just as serious and perhaps more so, and the indulgent parents do not give such reading by their children even a serious thought.

Parents use every safeguard they know of to prevent flies, the carriers of pathogenic bacteria to even light on the food their children are to eat for fear the food might then contain some poisonous material the flies may have deposited upon it, yet these same parents do not hesitate to allow their children to associate with evil companions. The children are even furnished with automobiles to take joy rides, remaining out until late at night in company with evil companions. The parents may know this is wrong, and the child is given a scolding; that is all.

The parents are very careful not to allow their children to eat over-ripe fruit, because it would not be good for their physical well-being, yet they allow their children, with their developing and imaginative minds, to flock to immoral and suggestive movies, not realizing the resulting mental illness that is going to follow.

From our experience at the Des Moines Health Center it is our opinion that in the vast majority of cases the child is to be pitied rather than censured. When the evidence is sifted down to final conclusions the cause is found to be in the neglect of the parents for the child's mental well-being.

Some parents say, "These conditions may apply to other people's children, but not to ours". Their attitude in thinking that their children are angels and thus exempt from the many, many temptations that are so prevalent in this day and age in which we are living is very dangerous, and they very often do not discover their mistake until it is too late. They should not assume that their children are angels, and, if they were, it is recorded that some angels have fallen.

My plea is for parents to pay more attention to their children; make companions of them; direct them in the books they are to read; very carefully direct them in the selection of the movies they are to see, and always know where they are, with whom and what they are doing all the time.

In other words parents should be as careful of the child's mental food as they are of the food intended for their body.

"The child is like a young flower. If properly cared for, and if environmental conditions are suitable for that particular plant, it will result in a wonderful blossom. If the average child receives reasonable care and attention, it will develop into a full, wholesome and normal personality. If, on the other hand, the environment is unsuitable and unhealthy, and if the child does not receive proper care and attention, it will become a stunted, unhappy personality", with potentialities for developing into an adult dependent, delinquent or criminal.

These mentally defective children need mental hygiene, child guidance and habit forming clinics where, through cooperating with the parents, their bad habits can be corrected and their lives moulded or remoulded so that they will become respected, self-supporting citizens, instead of dependents, delinquents and criminals.

"Behavior is a complex that needs deep and careful study. Those children displaying bad temper, lack of attention, day dreaming, exces-

sive phantasy indulgence, undue timidity and shyness, inability to mix freely with children of the same age, undue precociousness, marked fear and anxiety, pathologic lying and stealing, marked psychomotor restlessness, pathologic sex activity, capricious dietary habits, spasms and fits, all should receive exhaustive psychiatric study."

An astoundingly large per cent of our children of today are going to develop into the dependents, delinquents and criminals, the misfits of tomorrow, unless proper readjustments in their habits and lives are made.

Mal-adjustments develop early in life, even in the pre-school age. "All workers in the field of human behavior agree that the pattern of the conduct of an adult is formed during infancy and childhood." The age at which the adult personality is formed has been variously estimated at from eight to twelve years.

Not long ago the judge of the juvenile court in Des Moines had a boy, age fourteen years, brought before him for stealing. The boy's history was that of the usual type, failure to get along well in school, unruly, a disregard for rules, lying, stealing. He was large for his age, almost as big as his father; he was an only child and always pampered and babied by his mother, and the parents admitted their inability to control him at home. To make a long story short he was sentenced to the state reform school for boys at Eldora. The father broke down and made such a fuss that the judge sent him to me to see if anything could be done for the boy. There isn't any need of going into detail regarding the case except to make one point regarding the co-operation of parents in the training of the child. The mother always shielded the boy in his wrong doings. Every time the father tried to correct him in his early formative period of life the mother (to use the father's own words) "was on his coat tails and prevented him from doing so", and then there would be a scene between the father and mother. The father said the only time he did get far enough to try to correct the boy was just a few days previously when he got the worst of it himself. The point is there must always be complete accord between the parents in the correction of the child and never any disputes about the matter before the offspring.

How many times have you heard parents promise their children that they will "cut their ears off" (or some such a remark) "if they ever do this or that again". The child knows perfectly well that the parent will never fulfill such a promise. If there are any parents present, I wish to say this: never lose your good judgment

to the extent that you will make any rash statement or promise to your child you do not carry out. Every time you do such a thing you not only lose the confidence of your child, but you are virtually teaching him to lie.

The following facts should be of interest to us:

The criminal population of the United States is on the increase.

The average age of the penitentiary population in this country has been reduced from thirty-five years to less than twenty-five years during the past ten years.

The major crimes of today, such as murder, holdup, train robbery, bank robbery, etc., are being committed by boys from seventeen to twenty-four years of age.

More crime is being committed in the United States today than in any other country on the face of the earth.

The cost of crime in this country annually has been estimated to be about ten billion dollars, an amount approximating the cost of education in this country.

Surveys in the various fields have been made, the results of which have proved, even to the severest skeptic, the relationship of mental disease to dependence, delinquency and crime.

The framing of laws, the police court to seek out the criminal after he has committed the crime, the courts to mete out punishment, and the penitentiaries for incarceration are all quite necessary, but they are not getting at the cause. To effect a cure you just necessarily get at the cause.

The basic cause of crime, delinquency and dependence is mental disease in a large majority of the cases, and what is being done to get at this cause?

Tuberculosis, cancer and other serious physical maladies have been called plagues. However, it is now discovered that mental defectiveness is a greater plague and menace to this country than all these others combined.

It must be impressed upon the minds of everyone that mental health is just as important as physical health. A mental illness is much more difficult to detect and cure than a physical illness. If a child has pain as a symptom of physical illness, it complains to the parent and the family physician is sent for at once. In the case of mental illness, on the other hand, the child does not always complain of the symptoms. Too often he takes pleasure in and is secretive about them. Parents must be taught to be close observers of their children, their actions and activities. In fact, about the most serious occupa-

tion that I know of today is that of raising a family of children.

The physical well-being of every community today is well taken care of by way of health laws, comprising sanitation, quarantine regulation, etc. Up to about ten or twelve years ago nothing was done in this country to check the spread of mental ill health except in the field of so-called insanity. During the past ten years the field of mental health has developed rapidly until now it is on a safe and sound working basis. Mental health needs the same educational propaganda that physical health has received.

By thorough medical inspection and examination in our schools all children discovered having not only contagious physical disease, but scabies and impetigo, are forthwith dismissed from school and are not allowed to return until they can give a clean bill of health, which is a correct procedure. If the disease discovered is of a contagious character, the child is even quarantined to prevent the spread of disease. However, a child with a filthy mental disease is allowed to remain in school and thus the mental disease spreads unchecked. It must be kept in mind that mental disease may be just as contagious as physical disease.

Dr. Haven Emerson writes, "How gradual and submissive have we become to the right of entry into our sick rooms by health officers, without court warrants, on suspicion alone, to search for possible cases of communicable disease. How we welcome the searching and penetrating eye of the badged emissary of health laws who warns us of a hazard in a well or a privy, who stops our sales of food and confiscates our dairy products lest disease spread." Now I say to you that until such time that the health laws of our community and country at large are made to prevent the spread and multiplication of mental disease in the broader sense, mental disease and defectiveness will continue to be the greatest plague menacing this country.

"The fight against man's last spectre (mental disease and defectiveness) is everyone's."

"You cannot be a citizen, you cannot live in any community, you cannot share in the burden of public cost, however indirectly, and not wish for the success of the attack on mental disease and defectiveness, the safeguarding of mental health, which is mental hygiene."

"A mental hygiene movement cannot be carried out successfully by the medical profession or any one group alone. Just as the tuberculosis movement required the active cooperation of a large majority of the public for success, so does

the mental hygiene movement require widespread interest and help on the part of the community at large to achieve its goal."

The most important piece of social work in any community, to my mind, is that of a mental hygiene clinic.

What every community needs is first, a mental hygiene committee composed of interested lay and professional people who will make it their business to study this question and spread the gospel; second, there should be a state mental hygiene committee; third, a linking up of the state organization with the national mental hygiene organization. From the combined efforts of this system of organization much can be expected for the betterment of this country's condition as it pertains to crime, delinquency and dependence.

Much has been said and written regarding the question as to whether morals are better or worse today than they were formerly. Personally, I don't know, but I am inclined to believe that they are not quite so good.

Champions of our young generation claim that "they are not any worse than generations that have gone before". Some say that "the young oncoming generation is wild and on the sure road to hell." The young generation claim for themselves that "they are not any more rebellious, nor any more of a problem to their elders than youth has always been." They say that "their elders were born during the Victorian age, an age of hypocrisy, an age of mock morals, an age of self-sufficiency, an age when minds were veritable cess pools, when they did under cover those things the children of today do in the open."

I don't know how true all this is. There isn't any way of proving one side or the other. It all seems to me to be a matter of opinion. Perhaps what was formerly called "sparking", "billing", and "post office", and what is now called "necking" and "petting" are different terms for the same thing. I don't know. Perhaps there always were girls at the age of fourteen years who had, to speak very plainly to you, gonorrhea and pus tubes, I don't know, but certainly they couldn't have been so brazen about their experiences and the disastrous results as they are today.

Is the number of unmarried mothers increasing proportionately? I am not in possession of any statistics on this question, but will say that it would seem to those of us connected with this work that they certainly are. However, the following statistics, I believe, mean something: During the twelve months from October 1, 1926, to October 1, 1927, of the cases of gonorrhea that

were found among the patients at the Des Moines Health Center who presented themselves for examination, almost 55 per cent of them were in children of school age. In explanation, it must be stated that a large number of children brought to the Des Moines Health Center Clinics are delinquent or children of delinquent parents. This percentage has gradually increased during the past eight years up to this alarming figure and certainly Des Moines isn't any exception to the general run of other communities.

In this paper I make no apologies if I have indulged in generalities, as it is the president's privilege to do so.

When all is said and done, this old world is just about what the people who live in it make it. Simmered right down, it all depends upon the philosophy of life of the people of the world. The ambitions of some are to amass riches; others to attain renown socially, politically or otherwise; the aim of still another large group is to get all the pleasure they can out of life. Too often dishonesty, and other forms of immorality are resorted to in order to reach the goal of each of these groups.

The philosophy of life for the social worker, at least, is described in the poem:

AN ODE TO A SKELETON

Behold this ruin, 'tis a skull.
Once of ethereal spirit full
This narrow cell was life's retreat;
This space was thought's mysterious seat.
What beautiful visions filled this spot?
What dreams of pleasure, long forgot?
Nor hope, nor joy, nor love, nor fear
Hath left one trace of record here.

Beneath this mouldering canopy
Once shown the bright and busy eye,
But start not at the dismal void,
If social love that eye employed.
If not through evil fires it gleamed,
But through the dews of kindness beamed,
That eye shall shine forever bright
When stars and sun are sunk in night.

Within this hollow cavern hung
The ready swift and tuneful tongue.
If falsehood's honey it disdained,
And when it could not praise was chained;
If loud in virtue's cause it spoke,
Yet gentle concord never broke,
That silent tongue shall plead for thee
When time unfolds eternity.

Say, did these fingers delve in the mine,
Or with the envied ruby shine?

To hew the rock, to wear the gem,
Avails but little now to them.
But, if the page of truth they sought,
Or comfort to some mourner brought,
These hands a greater meed shall claim
Than all that wait on wealth and fame.

Avails it whether bare or shod
These feet the paths of duty trod?
If from the bowers of ease they fled,
To seek affliction's humble shed;
If grandeur's guilty bride they spurned
And home to virtue's cot returned,
These feet, with angel's wings shall vie,
And tread the palace of the sky.

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CHEST CLINICS IN IOWA*

Occasional Heart and Lung Clinics in a Rural State

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The combined heart and lung clinics, so-called "chest" clinics, or clinical conferences, are a form of diagnostic and consulting service being offered to the physicians of Iowa by the Iowa Tuberculosis Association and the Iowa Heart Association, during the past two years. It is our purpose to explain the methods employed in arranging and conducting these clinics, to discuss certain of the related public health aspects, and to make a clinical report of the patients examined. So far as we can learn, no other state has as yet conducted clinics in the same manner. Missouri is preparing to do so in a somewhat similar way. Wisconsin and Maryland and other states also have held combined chest clinics.

In May, 1925, the Iowa Heart Association was formed, and shortly thereafter it was affiliated with the Iowa Tuberculosis Association, permission having been granted to the latter organization by the National Tuberculosis Association. The affiliation of these two agencies has been mutually helpful, as we shall point out later. The Iowa Tuberculosis Association had for several years held occasional clinics on lung diseases. Since the heart work has been added, the clinics

*Reprinted from *The American Heart Journal*, vol. iii, No. 3, February, 1928.

include both lung and heart examinations, an examiner for each being in attendance.

Heart disease and tuberculosis are similar in certain respects. They frequently have their beginning in childhood; they develop slowly; they have symptoms in common; both may lie dormant for many years; usually they reach their climax in the productive years of life, and they require similar methods of treatment. Because these diseases exhibit such parallelism and because the case-finding methods and the conduct of the tuberculosis clinics can readily be adapted to serve patients with heart disease with but little added expense and effort, the combined chest clinic idea seems to be a sensible one and is worthy of trial wherever local conditions will allow it. Occasionally a request is received for a lung clinic alone or for a separate heart clinic, but it is the policy of the Association to give the two together.

The chief object of the clinic is to offer physicians in their own communities assistance in the diagnosis and treatment of patients with heart and lung diseases. For this reason we hold demonstration clinics, examining but a limited number of patients, rather than crowded diagnostic clinics as formerly. Realizing the necessity of maintaining the integrity of the County Medical Society, and with the conviction that if any co-operative movement among physicians is ultimately to succeed, it must be done in and through the organized medical forces, we endeavor so to conduct the clinics that they shall at all times be in harmony with the wishes of the county societies.

The publicity attending the clinic offers a splendid means of disseminating popular information regarding heart and lung diseases. Public talks are often given by the clinicians to high school assemblies and parent teacher associations. The attention of the general public is called to the importance of periodic health examinations by the family physician. The clinic discovers early cases, suspects, and contacts; emphasizes the importance of childhood infection, and gives a fine opportunity to advise patients how to live so as to avoid future breaks in health. A distinctly valuable function of these clinics lies in the point that persons fostering the local public health or the Christmas seal associations in the county find an interest in the clinic, for their funds are used to pay the local share of the expenses. Thus, the home doctors and the members of the local lay health organizations are bound together in a common endeavor, often with the result that the two groups work in closer harmony.

In Iowa, before the establishment of the combined chest clinics, the campaign against tuberculosis had failed to arouse sufficient interest in certain counties to cause them to request lung clinics. Since the addition of the heart clinics, fifteen additional counties have held the combined chest clinics. Not all of the credit for this awakening of interest is due to the new appeal of the campaign against heart disease, for an intensive effort to organize these counties has recently been carried on by the Iowa Tuberculosis Association, but it may reasonably be assumed that the interest in the tuberculosis movement in some counties has been stimulated by reason of the local and nation-wide campaign against heart disease. Not infrequently during the examination of patients in the clinics the examiner in tuberculosis finds a patient whose symptoms or findings suggest heart disease. Such a patient is then referred to the examiner in heart diseases, thus offering the opportunity for two opinions. Not only the patient but also the clinicians and the patient's physician are benefited by this interchange of opinions. Compilation of careful statistics from such clinics may be the only means of obtaining state-wide information regarding the types and morbidity of heart and lung diseases.

The details of arrangement for the conduct of these chest clinics have been given a great deal of study and attention. Endorsement of the plan has been given by the Iowa State Medical Society, the Board of Control of State Institutions, and the State Board of Health. Clinics are held only upon written request from county medical societies, such invitations being signed by the president or secretary of the society. In addition to this, a written request is expected from the local public health association or seal sale unit. Then, under the combined auspices of these agencies, the clinics are scheduled for some future date. Such a plan overcomes the objection raised by some physicians that clinics are sometimes conducted wholly under lay control without regard to the wishes of the physicians in the community. Upon receipt of the specified invitations, the Iowa Tuberculosis Association arranges with the custodian of the local seal sale funds to pay a part of the expenses and to make the necessary arrangements as to the place for the clinic and other details. There is no expense to the physicians individually or to the county medical societies.

Preliminary publicity is secured through the county newspapers by advance copy containing information relative to tuberculosis and heart diseases, together with notices about the time and

place of the clinic. Reference is made in these newspaper articles to the fact that only a limited number of persons can be examined and that all those who desire to come must first consult their family physician, for only through him are patients scheduled for examination. It is found that the average county editor is liberal with his space for this purpose.

The conferences or clinics are held on an average of once a week, usually on Fridays. About one week before the date selected, the staff field nurse goes into the county to complete the arrangements with the local committee. She visits every doctor in the county, explaining the plan to those not familiar with it, and urging each doctor to select a patient or two for the clinic. Often she visits the patients to obtain preliminary histories. From the records of previous clinics in the county she makes a check on patients who have been examined before, those persons residing there who have been discharged from sanatoria for the tuberculous in the state, and those ex-service men who have had a diagnosis of tuberculosis. Other sources of information are used to discover every possible tuberculous individual in the county. The nurse also makes arrangements for talks to be given by the examiners to lay groups and to the physicians at a noon luncheon. Should the clinic be held in the fall, those who are directing the seal sale often use the clinic with its attendant relations to public health as a means of promoting the seal sale.

A few points regarding the actual conduct of the clinics may be mentioned. The physicians are

invited to come with their patients and to present case histories and, if possible, laboratory reports. About one-half hour is allowed for each examination and an open clinical discussion follows. Certain instruments of precision have not been used thus far, but it is hoped that a portable electrocardiograph may be secured later to be used for demonstration purposes. If the examiner finds that the patient has definite or suspected lung or heart disease, or if a potential cardiac patient is found, he makes it a point to urge upon the patient the advisability of periodic examination by his family physician. Patients diagnosed as having active pulmonary tuberculosis are usually urged to apply for treatment in the state or county sanatoria in Iowa. Unfortunately no adequate provision is made in this state for the care of convalescent patients with heart disease. This is greatly needed. After the completion of the examination, the examiner writes his opinion with suggestions as to treatment, the original copy of which is given to the referring physician or sent to him by mail, while the duplicate remains with the history. The physicians appreciate these reports. The examinations usually begin at nine a. m. and continue until five p. m., thus allowing time to examine ten or twelve patients in each section of the clinic. Occasionally, instead of devoting time to clinical discussion of patients during the forenoon, a few selected patients are presented at a clinical conference with the entire group of physicians in the afternoon.

The response on the part of the local physicians has been more than satisfactory as shown

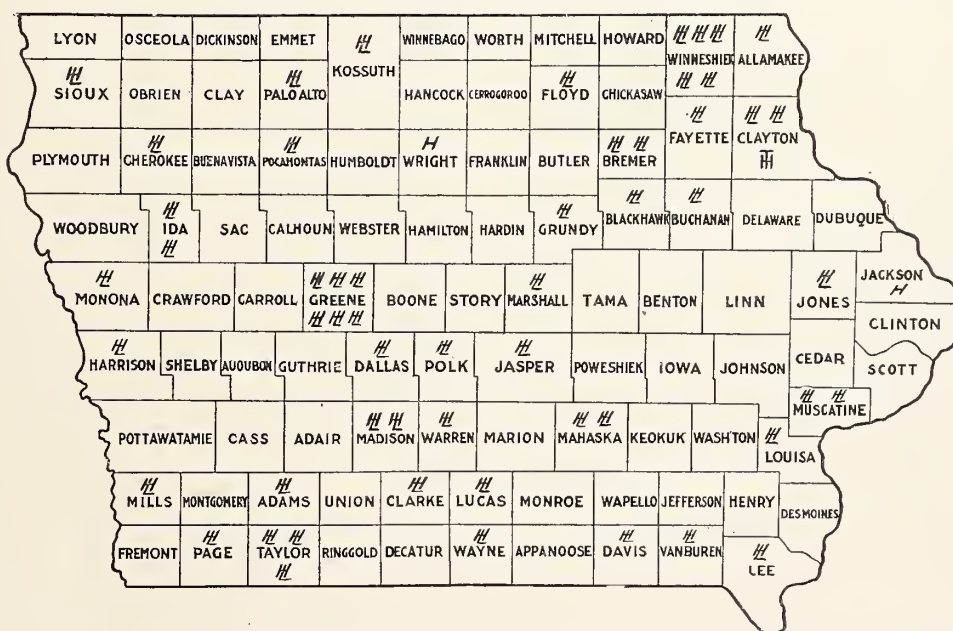


Figure 1. Heart and lung clinics in Iowa. The period covered is from May 21, 1925, to May 21, 1927. The symbol *HL* indicates combined heart and lung clinics. *H* indicates heart clinic alone.

by an average attendance of from 50 to 100 per cent of the membership of the county medical societies. The interest varies in different counties dependent upon many factors, such as the attitude of the community toward public health work, the activities of one or more interested physicans, and the character of the preclinic preparation by the staff nurse in charge. Reference is made to the map (Figure 1), which shows the state-wide distribution of the clinics covered in this report and the number held in each county.

REPORT ON HEART CLINICS

The system of cardiac diagnosis used in the clinics has been described by Dr. Paul D. White.¹ The nomenclature adopted by the American Heart Association² is similar to the above mentioned and is preferable. Such classifications offer a satisfactory means of studying patients from the etiological standpoint, and are also helpful in the clinical teaching of heart disease. Because of the lack of time to make complete examinations, errors in diagnosis are bound to occur, but by rechecking the patients at subsequent clinics some such mistakes are corrected. The only instruments used in the examinations are the stethoscope and the sphygmomanometer, for it is felt that the general practitioner is able to make a correct diagnosis in at least 75 per cent of cases with these instruments alone, if he also takes a complete history and examines his patients with care.

TABLE I
Classification of Diagnoses

	Total Number	Per Cent of all Patients	Per Cent of Heart Patients
Patients with Heart Disease (Etiological Types):			
Rheumatic	100	20.9	37.9
Arteriosclerotic	37	7.7	14.0
Hypertensive	32	6.7	12.1
Congenital	20	4.2	7.6
Angina Pectoris	20	4.2	7.6
Arteriosclerotic and Hypertensive	18	3.7	6.8
Uncertain Etiology	15	3.1	5.6
Syphilitic	9	1.9	3.4
Subacute Bacterial Endocarditis	4	0.8	1.5
Thyroid	4	0.8	1.5
Coronary Occlusion	2	0.4	0.8
Heart in Anemia	2	0.4	0.8
Toxic	1	0.2	0.4
Total	264	55.1	100.0
Patients Without Definite Heart Disease:			
Possible Heart Disease	35	7.3	-----
Nervous Hearts including Effort Syndrome	18	3.8	-----
Potential Heart Disease	10	2.1	-----
Total	63	13.2	-----
"No Heart Disease Found"	152	31.7	-----
Grand Total	479	100.0	-----

The following physicians have conducted a total of seven clinics: Dr. W. L. Bierring, Des Moines; Dr. V. C. Graber, Iowa City; Dr. John

Russell, Des Moines, and Dr. L. R. Woodward, Mason City. This report covers forty-eight clinics conducted by Myers between May 21, 1925, and May 21, 1927.

Table I represents the examination of 462 individuals. In seventeen instances patients were listed twice according to the etiological types of heart disease; hence, there are 479 diagnoses for consideration. Heart disease was diagnosed 264 times in the 479 cases, and in 215 instances evidence of definite heart disease was lacking. The more common disorders of the heart in the order of their frequency in this series are: rheumatic, arteriosclerotic, hypertensive, congenital, angina pectoris, and arteriosclerotic and hypertensive. The rheumatic form occurs more than twice as frequently as the next in order, the arteriosclerotic. This is partly explained by the fact that the physicians are especially requested to send young people and children with suspected heart disease to the clinics.

IMPORTANT CRITERIA FOR DIAGNOSIS

Rheumatic Heart Disease—The term "rheumatic heart" is not entirely satisfactory, but at present, it is used to cover practically all cases of non-syphilitic valvular disease in persons under forty years of age, except congenital changes.

TABLE II
Structural Changes in 100 Patients with Rheumatic Heart Disease

	Number	Per Cent
Mitral Stenosis	41	41
Mitral Regurgitation	39	39
Mitral Involvement*	33	33
Aortic Stenosis	7	7
Aortic Regurgitation	42	42
Enlargement	70	70
Acute Pericarditis	1	1
Chronic Adhesive Pericarditis	2	2

*This condition occurred in combination with aortic stenosis or aortic regurgitation.

Table II shows the structural changes in the 100 patients with rheumatic hearts. There were forty-three males and fifty-seven females. Seventy-four were considered to have inactive, sixteen active cardiac infection, and in ten activity was doubtful. In ten instances there was no demonstrable enlargement of the heart, in seven enlargement was questionable, and in thirteen there was no report. Symptoms or signs of congestive heart failure were present in twenty-nine patients. The following cardiac arrhythmias were noted: auricular fibrillation, sixteen times; premature contractions, nine times; paroxysmal tachycardia, twice; probable sino-auricular block, once; possible partial auriculoventricular block, once. Sixty-seven had regular rhythm or simple sinus arrhythmia, and the rhythm is not reported in four cases. The functional classification as

recommended by the American Heart Association was used: Class 1, 25; Class IIa, 38; Class IIb, 22; Class III, 12; class not reported, 3.

TABLE III		
Rheumatic Heart Disease, According to Age		
Ages	Number	Per Cent
1- 9	12	12
10-19	35	35
20-29	15	15
30-39	11	11
40-49	16	16
50-59	7	7
60-69	4	4
Total	100	100

Table III shows a separation of the cases of rheumatic heart disease according to age. The youngest was five, and the oldest was sixty-nine years of age. The highest per cent occurred from the ages of ten to nineteen. Wyckoff and Lingg³ have compiled similar figures from three different observers, and in each instance the highest per cent of cases occurred during the age period from twenty to twenty-nine.

With limited time for examination one must dispense with many routine questions in the history, but must find out definitely regarding the occurrence of rheumatic fever, chorea, recurrent tonsillitis, growing pains, and scarlet fever. These are the most important etiological infections, particularly rheumatic fever and chorea. Symptoms play a lesser role in early life than in later life. Mitral stenosis is the most characteristic valvular disease in the rheumatic heart, therefore, its detection is most important. We try to elicit the low-pitched, mid-diastolic rumble, or the crescendo presystolic murmur at the apex, pathognomonic of mitral stenosis, by examining the patient in the upright, recumbent, and left lateral positions. Occasionally it is found necessary to increase the heart rate by exercise or by amyl nitrite to bring out these murmurs. If either of the murmurs is distinctly heard, the diagnosis of rheumatic heart disease is established, for it is felt that in this part of the country there is no other known cause for organic mitral narrowing than rheumatic disease. It is recognized that when aortic insufficiency is present, the other murmurs, those at the apex in particular, are sometimes difficult to interpret. To avoid possible error in the case where the etiology is not clear, though the findings are typical, it has been pointed out that one should qualify his diagnosis by calling the condition one of rheumatic type rather than definite rheumatic heart disease. The diagnosis of mitral stenosis was made in 41 per cent of the patients with rheumatic hearts. "Probable" rheumatic heart dis-

ease is diagnosed when there is a definite history of rheumatic fever or chorea, if the patient has a very loud or long systolic murmur, with or without cardiac enlargement. Occasionally one finds aortic insufficiency to be the only detectable valve impairment in the rheumatic heart; usually, however, it is associated with mitral stenosis. Aortic insufficiency was diagnosed sixty-two times in the 264 cases and was considered to be due to rheumatic involvement in forty-two cases, syphilitic in eight, possible hypertensive and arteriosclerotic heart disease in one, arteriosclerotic in one, and ten cases were of uncertain origin, of which seven were probably rheumatic. The diagnosis of "mitral involvement" or "mitral impairment" has been made a number of times in young persons with a clear history of rheumatism or chorea, who have loud apical systolic murmurs, but without definite evidence of mitral stenosis, with or without aortic stenosis or regurgitation. Aortic stenosis is considered to be rheumatic in origin in most instances, though its exact diagnosis is often difficult. Tricuspid or pulmonic valve disease was not found in the rheumatic hearts. Cardiac enlargement in young persons signifies heart impairment. Auricular fibrillation in individuals under fifty years of age suggests a rheumatic etiology. Acute pericarditis and chronic adhesive pericarditis, both rare in this series, usually result from rheumatic infection. The latter condition is very difficult of diagnosis. Because of the great importance of rheumatic heart disease to the general practitioner, much time is spent in discussion of the etiology, prevention, and treatment.

Arteriosclerotic Heart Disease—One should suspect this type in persons over fifty years of age who present any of the following symptoms or signs: breathlessness on exertion, edema of feet or ankles, auricular fibrillation, anginal attacks. Hypertension and peripheral arteriosclerosis are not expected to be constant findings in this condition.

Hypertensive Heart Disease—This type results from either "essential" hypertension or nephritis. The family physician wants to know the earliest signs of heart involvement in persons with hypertension and, though it is often difficult to determine them, such symptoms as breathlessness on exertion, nocturnal dyspnea, substernal or precordial pain or aching, forcible palpitation, suggest beginning myocardial weakness. Eventually in such cases there follows cardiac enlargement, congestive failure, angina pectoris, vascular accident, or renal insufficiency.

Congenital Heart Disease—History of patients who have been "blue babies", persistent cyanosis of extremities and face, clubbing of fingers and toes, structural changes in the heart, usually associated with this type of cardiac disease, are important diagnostic points. Congenital heart disease was found in patients who had no evidence of such condition except the anatomical changes. The high proportion of congenital heart disease in this series is probably explained by the fact that physicians bring such patients to the clinic on account of their rarity and unusual interest.

Angina Pectoris—The criteria for the diagnosis of angina pectoris rest largely upon the history of pain, constriction, heaviness, or other form of distress in the substernal or precordial region, with or without radiation, the distress being precipitated by exertion and relieved by rest and nitrites. It is rarely present in persons under fifty years of age. In discussing this condition, the examiner has an opportunity to emphasize the importance of pain.

Arteriosclerotic and Hypertensive Heart Disease—When a patient has definite hypertension with well-marked arteriosclerosis and especially if auricular fibrillation is present, he is placed in the arteriosclerotic and hypertensive group.

Uncertain Etiology—This class includes for the most part adults with diastolic murmurs along the left sternal border not associated with other valve disease, where differentiation between syphilitic and rheumatic or other form of etiology is difficult; children with loud murmurs not clearly rheumatic or congenital in origin; and persons with enlargement, little evidence of valve disease and slight hypertension when one must consider the hypertensive, the thyroid, and the arteriosclerotic form.

Syphilitic Heart Disease—The diagnosis of cardiovascular syphilis is seldom made until the heart muscle weakens, producing symptoms, or the aortitis becomes extensive enough to involve the aortic ring, producing aortic insufficiency. Lues is always to be suspected in males over forty years of age who have symptoms such as breathlessness, chest discomfort, or nocturnal dyspnea of recent origin. Since aortic regurgitation is an early sign of the disease, the examiner devotes considerable time to discussing important features about the diastolic murmur, especially the soft, high-pitched quality and the fact that it is frequently heard most clearly along the left sternal border.

Bacterial Endocarditis—Only the subacute form was found in four patients. It is often

overlooked as a complication of rheumatic heart disease. Common clinical evidences are: protracted fever, weakness, visceral embolic phenomena, skin manifestations, Osler's nodes, and enlargement of the spleen. Blood cultures are often needed to establish the diagnosis.

Thyroid Heart Disease—This is a relatively uncommon form in our experience. One should make the clinical diagnosis of this condition only when there is evidence of more abnormality than simple tachycardia, like permanent or paroxysmal auricular fibrillation, cardiac enlargement, or congestive failure. The clinician finds it difficult to determine the point of change from a normal to a diseased heart in hyperthyroidism. Occasionally one finds cardiac enlargement to be the only discoverable structural change in the heart which, in the absence of hypertension, arteriosclerosis, or signs of chronic adhesive pericarditis, suggests chronic hyperthyroidism as the cause of the enlargement. Early diagnosis and prompt treatment have reduced the number of thyroid hearts.

Coronary Occlusion—Two of the patients with angina pectoris gave clear histories of attacks simulating coronary occlusion previous to our examination at the clinics. Their histories were characteristic: severe protracted chest pain, requiring morphine for relief, associated with marked prostration and a long period of convalescence. Other details of the diagnosis of coronary occlusion will not be discussed here. Some practitioners do not as yet distinguish between angina pectoris and coronary occlusion.

The Heart in Anemia—Two patients with evident anemia were thought to have heart muscle weakness and systolic murmurs complicating the anemia.

Toxic Heart—Rarely one sees persons with gall-bladder disease with cardiac signs or symptoms which seem to result therefrom. Excessive tobacco smoking or coffee may make the heart irritable.

No diagnosis of diphtheritic heart disease was made. None of the rare infectious types, like that from tuberculosis, was found, and in no instance did we make the diagnosis of "athlete's" heart, the "beer" heart, or "fatty" heart. No case of cardiac tumor was discovered. A considerable number of patients, 31.7 per cent, failed to show positive evidence of heart disease.

For the purpose of further study, some patients must be placed in the "possible heart disease" class. They usually have abnormal signs and symptoms, like paroxysmal auricular fibrillation,

with no other evidence of cardiac impairment, apical systolic murmurs which are difficult to interpret, or hyperthyroidism or hypertension with cardiac symptoms of indefinite nature.

With the nervous heart is included effort syndrome. The diagnosis of nervous heart is being made by us less frequently than formerly, especially in clinics where only comparatively short periods of observation are permitted. To tell one that he has a nervous heart often only adds fuel to his mental fire. Such patients are usually placed in the "no heart disease found" group.

Potential heart disease patients are for the most part young persons with definite history of rheumatic fever or chorea, in whom there is no proof of heart disease at the time of examination.

REPORT OF LUNG CLINICS

The method of diagnosis of pulmonary tuberculosis in use in the lung clinics is based upon case analysis through study of the cardinal points, according to Dr. Lawrason Brown,⁴ of Saranac Lake. His original statement is as follows: "After much study, five essential diagnostic data have been selected at Trudeau Sanatorium: (1) a history of hemoptysis, (2) presence of pleurisy with effusion, (3) the presence of tubercle bacilli, (4) the occurrence of moderately coarse rales above the third rib and third vertebral spine, and (5) the occurrence of diffuse mottling (parenchymatous lesion) in the same area on the x-ray plate. The absence of all five of these data demands a negative diagnosis; the presence of either the first or second datum makes a diagnosis of suspected tuberculosis advisable."

In practical use, therefore, great dependence must be placed upon an unexplained history of wet pleurisy or hemoptysis, and upon careful auscultation of the chest for posttussic apical rales in making a diagnosis. Occasionally an x-ray film is available or obtainable, though the average film is of doubtful value, especially in early cases. Sometimes the sputum has been examined, usually not at all, rarely more than once.

With these diagnostic limitations clearly in mind, we feel that a brief report of the result of the examinations for lung diseases at our clinics may be helpful to others. From May 21, 1925, to May 21, 1927, fifty-five combined chest clinics were held in various counties in the state. Two clinics were held by Dr. Harold E. Johnson, of Des Moines; two by Dr. J. Carl Painter, superintendent of Sunny Crest Sanatorium at Dubuque; one by Dr. O. W. Britt, assistant superintendent of the sanatorium at Worthington, Minnesota; and five by Dr. H. V. Scarborough, superintend-

ent of the State Sanatorium at Oakdale. The remaining forty-five clinics were conducted by one of us (Peck). It seems preferable that this latter number only be considered in the following statistical study.

TABLE IV		
Age Groups of Patients Examined		
Adults	462	85.1 per cent
Children	81	14.9 per cent
Total	543	100.0 per cent

All patients over fourteen years of age were classified as adults, and those fourteen years or under were classed as children. The attendance of children at the lung clinics was discouraged during the past two years more than formerly. The reason for this rule is obvious; the impossibility of making a positive diagnosis of tuberculous infection in children without the use of the x-ray and tuberculin. It is very rare to find chronic ulcerative pulmonary tuberculosis before the age of fifteen, there being but one instance in this series of eighty-one children. Some years ago we included a head surgeon and a pediatricist in our diagnostic group and then gave a more complete diagnostic service to children. These features, however, seemed to detract from what we regarded as our prime objective; that is, the recognition of definite lung diseases.

Separation of the 543 patients into the two natural divisions of tuberculous and non-tuberculous, revealed the surprising fact that almost exactly one-half of them fell into each class.

TABLE V		
Pathological Classification		
Number of patients found tuberculous	273	50.3 per cent
Number of patients found nontuberculous	270	49.7 per cent
Total number of patients examined	543	100.0 per cent

The reader should again be warned that the refinements of diagnosis are lacking in these one-day clinics held in churches, court houses, schools, lodge halls, and hospitals, under adverse conditions. No doubt a more careful study over a longer period of observation would materially alter these figures.

The 273 patients in whom pulmonary tuberculosis was diagnosticated, or at least strongly suspected, may be further divided according to the clinical evidence of disease, as follows:

TABLE VI		
Clinical Classification		
	Number	Per Cent
Pulmonary tuberculosis, active	146	53.5
Pulmonary tuberculosis, nonclinical	36	13.2
Tuberculosis "suspects"	70	25.6
Tuberculous adenitis	7	2.6
Chronic pleurisy, dry	11	4.0
Pleurisy with effusion	3	1.1
Total tuberculous patients	273	100.0

Exact estimation of activity in many instances presented an exceedingly difficult problem, necessarily to be solved almost instantaneously. Usually the clinical sense of the examiner was the determining factor, guided by the temperature, tho pulse rate, the moisture on auscultation, and perhaps very largely by the invaluable information obtained from the family physician.

The group of inactive cases was made up principally of ex-sanatorium patients, together with a certain number showing unmistakable evidence of chronic fibroid phthisis. The examination of former sanatorium patients is regarded as an especially valuable form of follow-up work, as it is not feasible for many such patients to return to their sanatorium for their periodic reexaminations, the necessity for which is always stressed. Complete files are maintained at the office of the Iowa Tuberculosis Association of admissions to and discharges from our public sanatoria, as well as other known active cases in the state, thus making the records available to our clinic nurses.

The "suspects" include many cases which are susceptible of more exact classification, with more time and better equipment. The attending physician is always urged to study carefully such patients, making use of the case analysis system previously described.

Tuberculous adenitis is doubtless much more common than we have shown here. In the seven cases mentioned the glandular involvement seemed to be the principal pathology. Some of these no doubt were hilus tuberculosis, but lacked the necessary x-ray and tuberculin confirmation.

The remaining 270 cases in which no tuberculosis could be determined presented an interesting group. In 201 of them no pulmonary pathology was found, leaving sixty-nine cases of non-tuberculous pulmonary infection which deserve more extended comment.

TABLE VII
Nontuberculous Pulmonary Infections

	Number	Per Cent
Bronchitis, various types	18	26.1
Neoplasms	5	7.2
Chronic Empyema	5	7.2
Bronchial Asthma	13	18.9
Bronchiectasis	28	40.6
Total	69	100.0

The bronchitis cases, including acute, subacute, and chronic, of various types, deserve more careful differential diagnosis than our limited time permitted. More than likely repeated sputum examinations would materially reduce the number in this group. The importance of examinations of the sputum by a reliable technician was always impressed upon the general practi-

tioner, so that possible diagnostic errors would be kept at the minimum.

Primary pulmonary neoplasm is believed to be much more common than is generally regarded. One per cent should not be too high a percentage to discover in such patients. Only one case was definitely proved at autopsy, but the others were clinically very suggestive.

Chronic empyema rarely becomes a causative factor in pulmonary tuberculosis, although a frequent source of worry to the patient. The five instances were all post-operative, in two cases with poor surgical results.

Bronchial asthma was diagnosticated in thirteen instances, usually upon a clear history of paroxysmal attacks of spasmodic bronchitis or from the evidence submitted by the medical attendant. Typical musical rales were heard in many cases. Obviously no further effort was made to analyze such patients as to their allergic phenomena, etc.

Bronchiectasis is apparently frequent in Iowa, since the influenza epidemic which, partially at least, accounts for the twenty-eight cases seen. The diagnosis is usually not difficult, based upon the chronicity, the history, the character of the sputum, negative bacillary reports, and characteristic physical findings. Postural drainage is urgently advised in all such patients, especially the children, and beneficial results are frequently obtained. The use of iodized oil is routinely suggested in order to determine the exact extent and location of the pulmonary pathology and to differentiate this condition from lung abscess.

The group of 201 patients without evident tuberculosis was made up of a large number of contacts, a few neurotics, and many with extrapulmonary disease, such as nasal, dental, sinus, tonsillar, pharyngeal, cardiac, thyroid, intestinal, etc., even after careful selection of presumably suitable clinical material. This experience presents a strong argument for periodic health examinations.

An earnest effort was made to advise all the tuberculous patients carefully regarding their future care, as shown in Table VIII.

TABLE VIII
Disposition of Tuberculous Patients

	Number	Per Cent
Advised sanatorium treatment	119	43.6
Advised close medical supervision	102	37.4
Advised home res: regime under physician	52	19.0
Total	273	100.0

With profound respect for institutional care of tuberculosis, we found twenty-seven, or nearly 20 per cent of the patients with active pulmonary

disease whom we failed to advise to go to a sanatorium. Some of these were elderly persons who do not adapt themselves to prolonged hospital regime; some were exsanatorium patients, who are faithfully carrying on after their institutional training; some had exceptional home conditions and an unstable nervous balance, who should have a trial at home under the care of a competent physician in whom they have implicit confidence; and a few were terminals who can be isolated, and whom the sanatorium cannot especially benefit. All patients with pleurisy with effusion out of a clear sky are considered tuberculous and advised to accept sanatorium treatment.

The inactive cases of closed tuberculosis present no hazard to others so long as they remain sputum free, but they rarely can be depended upon to continue under sufficiently close medical supervision.

The relatively large group of "suspects" cause us real trouble in diagnosis. Only exceptionally will they accept adequate medical observation, and they seem perfectly satisfied to neglect periodic reexaminations. Some form of legal persuasion for such patients would have our hearty endorsement. A large proportion of these suspects should have an intracutaneous tuberculin test, for the psychic value of an ocular demonstration of their tuberculous infection may produce a realization of their physical condition.

SUMMARY

1. Chest clinics as conducted in Iowa for two years, though still somewhat experimental, offer a valuable medical service in the campaign against tuberculosis and heart disease.

2. Organizations sponsoring the clinics find them mutually valuable in several ways:

a. They are a form of health work dealing specifically with diseases of the heart and lungs.

b. They furnish a means of carrying the message of health into the home communities.

c. The individuals conducting the seal sale observe tangible results from the use of their funds.

d. The talks to school children supplement the child health education program of the tuberculosis associations.

3. The clinics stimulate interest among physicians in public health work, thereby often bridging the gap between them and the local lay health organizations.

4. The clinical conferences and discussions of specific cases are apparently appreciated by the physicians.

5. A report is made here on the heart clinics which includes a classification of diagnoses, the structural changes found in patients with rheumatic hearts, and a discussion of the important criteria for diagnosis.

6. A report is also made on the lung clinics giving a pathological and clinical classification of all patients examined, according to the Trudeau scheme, and a resume of certain diagnostic problems in lung diseases.

7. Should a similar plan of holding chest clinics be undertaken in several states, a standardization of the publicity, nomenclature, and clinical methods is advisable.

We desire to express our thanks to the staff of the Iowa Tuberculosis Association and the Iowa Heart Association, particularly to the Director of Clinics, Miss Lucy McMichael, R.N.

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THE LESLIE DANA MEDAL

The fourth award of the Leslie Dana medal, presented annually through the Missouri Association for the blind to the person selected from the nominations received by the National Society for the Prevention of Blindness, will take place during the 1928 meeting of the American Academy of Ophthalmology and Otolaryngology, in St. Louis, Missouri.

Nominations will be received by the National Society for the Prevention of Blindness, together with detailed information prompting the nomination, until the fifteenth day of May, 1928. The medical profession and ophthalmological societies are invited to submit names of persons deemed worthy of this honor to the National Society, under the conditions set forth in the deed of gift, as follows:

a. Long meritorious service for the conservation of vision in the prevention and cure of diseases dangerous to eyesight.

b. Research and instructions in ophthalmology and allied subjects.

c. Social service for the control of eye diseases.

d. Special discoveries in the domain of general science or medicine of exceptional importance in conservation of vision.

The recipient of the first medal awarded (1925) was Dr. Edward Jackson of Denver. The second annual award (1926) was to the late Miss Louisa Lee Schuyler of New York City, and the third award (1927) was to Dr. Lucien Howe, until recently of Buffalo, now of Cambridge.

The Journal of the Iowa State Medical Society

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Vol. XVIII April, 1923 No. 4

THE REGIUS PROFESSORSHIP OF MEDICINE AT OXFORD

This position was founded by Henry VIII in 1546, the original salary was about \$200 a year. Since that date there has been added to the chair the mastership of the almshouse at Eweline in Oxfordshire in 1617, and the Alrichian Professorship of the Practice of Medicine, 1858.

The Regius Professorship has been held by a long list of distinguished names. The last to be appointed is Sir Farquhar Buzzard who succeeds Sir Archibald Garrod, who in turn succeeded Sir William Osler. By virtue of his professorship Sir Farquhar will be the official examiner in medicine for all candidates for the M.D. degree at Oxford, as well as a Curator of the Brodlein Library. Sir Farquhar Buzzard is a distinguished English Neurologist who was born in London December 20, 1871, the son of Dr. Thomas Buzzard, a distinguished neurologist and soldier of the Crimean War.

HIGH DEATH RATE IN MIDDLE LIFE

The loss to this country of men and women in middle life from degenerative types of disease is serious. Many opinions have been expressed and much stress has been placed on the demands of our present day strain in business and social life. One of our foremost economists has felt the need of more definite and more accurate knowledge on

the subject. For this purpose Mr. Albert D. Trasker of Chicago has given to the University of Chicago the sum of \$1,000,000 as an endowment fund for research into the causes of the degenerative diseases which have cut short so many valuable lives. We may look forward hopefully to preventive means based on better knowledge with cooperation.

THE NECESSARY NUMBER OF HOURS OF SLEEP

We are informed by Dr. F. A. Mass, professor of Applied Psychology of George Washington University that the theory of eight hours of sleep as a health requirement "is an outworn Anglo-Saxon Myth", and holds that six hours sleep is sufficient from twenty to sixty years of age, thus saving many years of efficiency.

Dr. Johnson, from experiments conducted at the Melon Institute at Pillsburg, concludes that our state of mind determines the reaction to sensations which follows lack of sleep and is quoted as follows: "Our state of mind has a great deal to do with this habit of sleep. If we do not get our full eight hours at night we are too ready to blame every ill to lack of sleep. Much of the tired feeling subsequent to going a night without our full quota of sleep exists only in the mind. We think we ought to feel fatigued, consequently we do feel fatigued."

The Boston Medical and Surgical Journal observes; "physical and mental stability varies so much and nutritional needs are so dissimilar in various types of persons that one may, with reason, be skeptical with respect to such sweeping statements." We feel quite in accord with the editor of the Boston Journal and doubt the value of experimental work in this direction.

Schiller and Keats were great poets but poor physicians, both were really, in a measure, forced into the study of medicine and became practitioners but found a way out as soon as possible. Their gifts were in other lines.

CAMPAIGN ON EARLY DIAGNOSIS

March 16, 1923.

An open letter to the physicians of Iowa:

My attention has been called to a campaign on Early Diagnosis, being conducted this spring by the National Tuberculosis Association, the Iowa Tuberculosis Association, and local health associations and Christmas seal committees.

I believe this campaign should receive the support of every physician in the state. The movement is a popular educational one, making an effort to get people to go to their family physician early for examination. We have accomplished much in the past by conducting these campaigns of education. There is still much to be done along this line, and it is only by keeping everlastingly at it that we may hope to secure lasting benefits from the good work already done.

Very truly yours,
M. J. Kenefick,
President,
Iowa State Medical Society.

CLINICAL LABORATORY SERVICE IN THE UNITED STATES

Statement by the Council on Medical Education and Hospitals

During the last decade there has been much discussion in medical and laboratory journals and particularly on the platform of medical and laboratory conventions, regarding the status of the clinical laboratories of the country. Especially it was regretted that the practice of clinical pathology, regarded as one of the medical specialties, has fallen into disrepute. The fact was lamented that the laboratory work had fallen into the hands of lay technicians and become the toy of persons who had a purely commercial point of view and very little training for the work. Much disgust and quite a strong note of despair was sounded by those few members of the medical profession who had championed the cause of clinical pathology and had adopted that specialty as a life work.

Many letters were received at the office of the American Medical Association from practitioners of pathology and leaders in medicine regretting the drift toward lay commercialism, and urging that something be done to counteract it. What to do about it was a question. Organizations of chemists were interested because some of their members ran laboratories. Likewise organizations of clinical pathologists, bacteriologists, and of the medical profession were equally interested. Some of these organizations working alone undertook to investigate and to standardize the practice of clinical pathology, hoping to check the drift of that practice into the hands of technicians and restore it to its rightful place as a medical specialty.

The efforts of those organizations working single handed were of little or no avail except to emphasize the enormity of the task and the necessity for co-operation.

Cooperation Effectuated in 1923

The necessary cooperation of the laboratory and medical organizations was brought about in 1923 at the annual meeting of the American Medical Association in San Francisco. At that time, delegates

sent by the American Chemical Society and the American Association of Pathologists and Bacteriologists separately petitioned the American Medical Association to establish some supervision over clinical laboratories. This led to the appointment of three committees representing the American Chemical Society, the American Association of Pathologists and Bacteriologists, and the Council on Medical Education and Hospitals. At a joint meeting of these committees in Chicago early in 1924, after much deliberation, certain basic principles underlying sound laboratory service were agreed upon which stressed especially a qualified bona fide director as the prime essential. The joint committee agreed that this work could best be conducted by the Council on Medical Education and Hospitals.

The first steps were: (a) to secure a complete list of laboratories in the country; (b) the preparation of a schedule of essentials in an improved clinical laboratory, and (c) the preparation of a questionnaire by which the essential facts regarding each laboratory could be obtained. Each of those measures was carried out with the advice and cooperation of fifty or more clinicians and others expert in laboratory work, including the committeemen of the above-named organizations, and by the officers of the American Society of Clinical Pathologists which very early showed an interest and from which the Council has received a hearty cooperation.

After being revised and adopted by all parties interested, the questionnaire was mailed to all the laboratories of the country and a most hearty response was received. A complete report of the survey, "Essentials of an approved Clinical Laboratory", and a preliminary list of laboratories which appeared to be fully complying with those "Essentials", were published in the Hospital Number of the Journal for April 3, 1926. The facts as published were submitted to the House of Delegates of the American Medical Association at the Dallas session in 1926 and approved by that body.

To assist in giving as fair consideration as possible to each application for approval, a strong committee of laboratory experts was formed in every state or section of the country. Those committees aggregate one hundred and twenty individuals representing, as equally as possible, the cooperating organizations and hence the interests of the laboratory profession. Under the direction of the Council, each committeeman makes his investigation and renders his report or advice independently of other committeemen in the same district.

At the present time, of the three hundred and fourteen laboratories that have reported, one hundred and fifty-one, after careful investigation, have been placed on the approved list and other applications for approval are constantly being received.

The Council lends all possible assistance to laboratories whereby they may become eligible for admission to the accepted list. Every laboratory that makes a report and signifies a desire to conform to the requirements, is informed in regard to any defi-

ciencies. The spirit of this movement all the way through is constructive. Anyone who knows the condition of the laboratory field at the time this survey was begun, would not expect very telling or spectacular results to be shown by this time; nevertheless, there are ample reasons for believing that actual improvements are being made: (1) a number of laboratories formerly run by technicians and only nominally under "medical" directors, have come under the ownership and actual control of clinical pathologists of high professional standing and ripe experience; (2) a number of laboratories under the control of technicians have gone out of business; (3) the "Essentials" have been published repeatedly and thus brought to the attention of all persons working in the field of clinical pathology; (4) there is an increased demand for pathologists to man the clinical laboratories of the country; (5) the director of the Mayo Foundation says that the salaries offered the pathological graduates of the Foundation are double those offered to other graduates of the Foundation; (6) the feeling of unsteadiness indicated in the discussions of a few years ago has subsided to a considerable degree, and there is a more hopeful attitude on the part of the clinical pathologists themselves.

Future Outlook

The movement is still in its beginning, but a good start has been made. To what extent doctors have actually discontinued sending specimens to unapproved laboratories and are sending them to approved laboratories is not known. The educational results, however, are becoming increasingly evident. In order to secure the best analyses for the benefit of their patients as well as to best conserve the interests of the medical profession, physicians should refuse to have their work done at laboratories conducted under the direction of non-medical individuals. Much depends, also, on the continued hearty support of the various organizations and individuals who operate in the laboratory field. That this is already assured is indicated by the promptness with which laboratories are filling out and returning the form that has recently been mailed out by the Council on Medical Education and Hospitals for a complete and needed resurvey of laboratory service. The resulting data from this survey will be published for the benefit of all. Of course, any laboratories that are not yet on the list, will be promptly considered for approval, if they express such a desire.

Dear Editor:

These abstracts are from articles appearing in the December, 1927, issue of the *International Clinics*, published by the J. B. Lippincott Company, East Washington Square, Philadelphia, and edited by Dr. Henry W. Cattell, Cookstown, New Jersey. They embody the most recent knowledge in medical science and worth-while advances in the practice of medicine, and are for your use, provided due credit

is given to the source of origin, namely the *International Clinics*. If use be made of them, the publishers would appreciate the receipt of a marked copy of the paper in which the material is inserted.

J. B. Lippincott Company.

The Treatment of the Patient with Pneumonia

The author emphasizes the fact that to all practical purposes the medical profession is still as helpless in the treatment of pneumonia as it was a quarter of a century ago.

Much, however, has been learned as to treatment of the pneumonia patient in contradistinction to treatment of the disease itself.

The most essential single object to be accomplished in the handling of these patients is rest, not only physical but mental and emotional as well. Quiet surroundings are needed. Visitors should be excluded.

The patient should be allowed to select his own position in bed. Cough should be combated by codeine, morphine or opium in another form. Bromides are also indicated when rest cannot be accomplished by physical means alone.

Where the cough is loose it is probably physiological in intent and is best left alone. When dry and irritating, relief may be obtained by ammonium chloride or the iodides. In still other cases sedatives may be indicated.

Some cases do splendidly under the open air treatment, others badly, especially those of influenzal origin. Persons from tropical countries cannot stand this treatment.

The room temperature should be low, except in cases of pneumonia following measles, scarlet fever or influenza and in old age or in traumatic or debilitated cases.

Oxygen is very useful in cases suffering from cyanosis and in certain unexplained cases of dyspnea.

Most fatal cases of pneumonia terminate with a circulatory failure. The basic pathology in most cases of cardiac failure is a myocardial degeneration with a consequent giving way, a dilatation of that portion of the heart exposed to stress, in this disease the right heart. In young healthy subjects preliminary digitalis therapy is not indicated unless signs of circulatory embarrassment appear. In adults and aged patients the preliminary use of digitalis may save the day. In some instances strophanthus, caffeine and strychnia give better results. Caffeine works admirably when the circulatory failure is associated with a nervous defect.

A method of treatment of associated crises of the pulmonary and cardiovascular systems is often seen in a properly timed venesection. This is particularly valuable in the early stages of the disease when the pulmonary congestion, perhaps with edema, is especially critical.

The most satisfactory measures for relieving tympanites are pituitrin or adrenalin, singly or asso-

ciated, camphor, caffeine and occasionally strychnine with enemas.

The most satisfactory of the less frequently observed renal insufficiency is usually along circulatory lines, but theosin, diuretin and caffeine are usually sufficient to reestablish kidney action.

Water, fruit juices and sugar solutions given in abundance are always beneficial. Sufficient alkali to hold the urine nearly at the amphoteric point is often advisable.

Delirium usually calls for the active exhibition of chloral, of the bromides, or for morphine, opium or codeine.

Diet is of little importance.

When the pneumonia patient becomes septic very little can be done.

The patient who recovers from pneumonia will not be completely back to his normal condition for perhaps six months.—International Clinics, December, 1927.—Brooks, H.

Cystocele

Dr. J. Bright Banister of London, England, reports a case of a woman fifty-six years of age, who has had four children. She has been complaining for several years of a bearing down feeling and of a lump which appears at the vulva when she walks. For the last two years she has had very marked bladder symptoms. At operation the cervix was not very abnormal, there was no great hypertrophy nor any deep laceration. He stated that in as much as the patient was past the menopause, he would endeavor to cure the cystocele by means of the interposition operation, i.e., open the anterior peritoneal pouch, draw the uterus out and with it push up the bladder. Before doing this he made a longitudinal incision in the anterior vaginal wall and separated the vaginal mucous membrane from the bladder. The next step was to form a new perineum and he called attention to two small points in the technic employed: In the first place, the last deep suture is made to enter at the extreme lateral angle of the denuded area. This suture passes close to the cut edge of the vaginal wall and picks up in its bite the tissue at the apex of the separation of the vagina from the rectum; then passes round the opposite wall, quite close to the cut edges and emerges at the opposite lateral angle. The other point is the continuous suture of the vaginal wall. He also calls attention to the fact that these deep perineal stitches must be tied so as not to strangle the tissues contained therein.—International Clinics, December, 1927.

How to Make Use of the Best Elective Effect of Roentgen-rays in Therapeutics

Roentgen-rays being a physical drug with toxic as well as therapeutic values as any other drug stuff, their biological reaction in the tissue is bound to their absorption. The absorption of roentgen-rays is controlled only by physical respectively optical

laws and is beyond the action of the metabolism of the tissues themselves. The toxic effect of the roentgen-rays, if skillfully limited to the diseased organ, can be of the greatest therapeutic value to our patients, but if administered without knowledge of their toxic qualities and without consideration for the other tissues of the body, we can expect from the roentgen-ray nothing but injury to our patients. The distribution of the roentgen-rays in the body tissues coming from a sharply limited roentgen-ray cone is greatly influenced by the so-called disturbed rays and follows certain physical laws. In order to facilitate the administration of x-rays with the goal of the most elective effect, Doctor Holfelder has built his field selector with yellow colored patterns which show the distribution of the roentgen energy in different x-ray cones in accordance with the true facts. The most important points to consider in order to get in each case the best elective effect of roentgen-rays are, that the administration of the first and strongest part of the x-ray cone to the diseased area itself is of the greatest therapeutic value and that for doing so and for safeguarding all other tissues each case has to be treated individually, according to a carefully preconsidered plan, and that to make use of the strongest compression is of greater help to the patient than the race in voltages.—International Clinics, December, 1927.—By Dr. Hans Holfelder, Frankfurt-am-Main, Germany.

CHILD HEALTH DAY

May first will be observed as Child Health Day throughout Iowa and the nation at large by schools, women's clubs, parent-teacher associations, farm bureaus and various community organizations.

Dr. Mae Habenicht has been appointed state chairman by Dr. Henry Albert, state commissioner of health, acting on the request of the American Child Health Association headed by Herbert Hoover which is promoting the May day movement nationally in cooperation with the National Tuberculosis Association and other health organizations.

The observance of May first as a special day devoted to the consideration of child welfare plans and accomplishments has now become a national custom, this being the fifth year in which the project has been carried through.

Cooperating with Dr. Habenicht are representatives of practically all of the state wide agencies which have any interest in child health including the Iowa Federation of Women's Clubs, the Iowa Congress of Parents and Teachers, the Iowa Tuberculosis Association, the Iowa Heart Association, the State Department of Health, W. C. T. U., the American Legion, the Legion Auxiliary, the Iowa Farm Bureau Federation, the Farm Bureau Women, the State Dental Society, the State Home Economics Association, the League of Women Voters, Iowa State Nurses Association, the Play Ground Association, Amateur Athletics Federation.

The local units of these various organizations will be urged by their state headquarters to observe the day with a special program. County city superintendents will be asked by the state superintendent of public instruction to see that May day is especially featured in the schools.

Sample programs will be offered by the state chairman through the State Department of Health suggesting such features as plays, pageants, games, folk dances, athletics, contests, moving pictures, talks, essay and poster contests and community meetings. Different organizations will summarize in public meetings progress in plans in which they have been especially interested such as the summer round up, diphtheria immunization, etc.

FEDERAL OFFICIALS TO PROCEED AGAINST MISBRANDED COD LIVER PREPARATIONS

Action is under way to remove from the channels of interstate commerce adulterated, misbranded, deteriorated, or otherwise illegal extracts of cod liver, cod liver oil, and preparations falsely alleged to contain the vitamins of cod liver oil, according to a statement issued by officials of the Food, Drug and Insecticide Administration of the United States Department of Agriculture.

During 1927 the Department of Agriculture conducted an extensive survey of extracts of cod liver, of cod liver oil and of various products alleged to contain the vitamins of cod liver oil found in interstate commerce. A biological examination for the presence of vitamins A and D in these products showed that practically all of the extracts and concentrates examined were virtually devoid of vitamin A and that very few contained any material amount of vitamin D. Several of these articles have been used extensively in the manufacture of so-called cod liver oil compound tablets and other preparations.

The Federal food and drugs act makes the manufacturer or distributor of medicinal products responsible for marketing them in harmony with its provisions. Manufacturers should assure themselves that the cod liver oil vitamins are present in therapeutically significant amounts. The Department of Agriculture will take action against products that are labeled or represented as containing the cod liver oil vitamins, unless such products contain in the recommended dosage cod liver oil vitamins in quantities equivalent to those present in the normally prescribed doses of cod liver oil.

Products represented as concentrates of cod liver oil should contain vitamins A and D in concentrations reasonably higher than those of a good grade of cod liver oil. Statements regarding the therapeutic effects of the preparations should be limited to those that can be fully substantiated by the consensus of present-day medical opinion. Investigations of this class of products will be continued for the purpose of removing from the market adulter-

ated, misbranded, deteriorated, or otherwise illegal preparations.

THE BUDAPEST CONGRESS

September, 1928

"The Fifth International Medical Congress for Industrial Accidents and Occupational Diseases" is to be held in Budapest during September, 1928. The executive committee consists of the following: President, Dr. Tibor de Verebely, professor at the University; vice-president, Dr. William de Friedrich, professor at the University; secretary-general, privatdozent, Dr. George Gortvay, section chief.

The national committee of the United States has been created and consists of the following: Dr. Volney S. Cheney, Chicago; Dr. R. W. Corwin, Pueblo; Dr. Eugene L. Fisk, New York; Dr. Otto P. Geier, Cincinnati; Dr. Leonard Greenburg, New Haven; Dr. George M. Kober, Washington, D. C.; Dr. W. J. McConnell, Philadelphia; Dr. Lloyd Noland, Birmingham; Dr. Francis D. Patterson, Philadelphia; Dr. George M. Price, New York; Dr. Frank L. Rector, Chicago; Dr. William A. Sawyer, Rochester; Dr. Henry F. Smyth, Philadelphia; Dr. C. E. A. Winslow, New Haven, and Dr. Emery R. Hayhurst, Columbus, chairman.

Addresses already scheduled by various prominent Europeans include the following: Prof. J. Liniger, Frankfurt a.M.; Dr. F. Zollinger, Aarau; Prof. K. B. Lehmann, Wurzburg; Sir Thomas Oliver, London; Prof. J. G. Sleeswijk, Delft; Prof. Jutten, Munster; Prof. Koelsch, Muenchen; Prof. Julius van der Hoeve, Leiden; Prof. Dr. Stephen Jellinek, Wien. Also lectures are scheduled to date by the following: Prof. Salvaxore Diez, Poma; Dr. C. Poenaru Caplescu und Dr. Presbeanu, Bukarest; Prof. Theodor Sommerfeld, Berlin; Dr. Lorenz Bohler, Wien; Prof. Dr. Quensel, Leipzig; Prof. Dr. C. Marcus, Breslau; Prof. Dr. Molineus, Dusseldorf; and Sanitätsrat Dr. Alfred Peyser, Berlin-Charlottenburg.

Addresses and lectures are wanted from American physicians, dentists, and other specialists in the field. Such are requested to get in touch with the chairman for the National Committee for the United States, Dr. Emery R. Hayhurst, Hamilton Hall, Ohio State University, Columbus, Ohio. General invitation is also extended to attend the Congress which will be arranged so as to co-ordinate with the "Deutscher Naturforscher Tag" to be held in Hamburg, and the "Orthopadenkongress" to be held at Prague during the month of September, 1928.—Boston Medical and Surgical Journal, December 29, 1927.

TAKE DUE AND TIMELY NOTICE

Your 1928 membership card will be your mark of eligibility to register at the Seventy-Seventh Annual Session, Cedar Rapids, May 9, 10 and 11. Have you paid your 1928 dues to your local Secretary?

MEDICAL NEWS NOTES

Dr. Amante Rongetti, a Chicago physician operating a private hospital known as the Ashland Boulevard Hospital, was sentenced to the electric chair for producing an abortion on a girl nineteen years of age, causing her death under circumstances of great cruelty. Dr. Rongetti's conduct during the trial was such as to intensify the feelings of the jury. This appears to be the first case that the death penalty has been passed on a doctor for committing the crime of abortion leading to the death of the victim. No sympathy can go out to the doctor by right thinking people.

Doctor Joseph C. Bloodgood of Baltimore, associate professor of clinical surgery, Johns-Hopkins University medical department and surgeon to Johns Hopkins Hospital has accepted an invitation to address the Adams County Medical Society at Quincy on Monday, May 7. Doctor Bloodgood is one of America's great surgeons and is an international authority on cancer. Doctor Bloodgood will address several of the service clubs at noon, hold a diagnostic clinic in the afternoon, and will be the guest of honor at a dinner in the evening. Following the dinner he will present a formal paper on some phase of the cancer problem before the Adams County Medical Society and visiting physicians.

Arrangements are being made for a special Pullman car leaving Quincy at midnight on the seventh to convey physicians to Chicago for the Illinois State Medical Society's annual meeting.

The International Clinics has opened a department of medical questionnaires, under the direction of the editor Dr. Henry Cattell, of considerable clinical interest. We have received a series of clinical questionnaires which we will publish in installments. Dr. Cattell is a distinguished medical writer.

The names of the section chairmen are as follows:
Surgical—W. A. Rohlf of Waverly.
Medical—John H. Peck of Des Moines.
Eye, ear, nose and throat—James Reeder of Sioux City.

To the Editor (Journal Iowa State Medical Society):
It may be of small moment that I should approve your publicity for the political aspirations of my long time friend, Dr. Langworthy. But it may offset another's disapproval; and that ambition is praiseworthy. Medical men in this country (as compared with those in European countries) have been slow to offer themselves for positions of public trust; positions for which their training in medicine has made them peculiarly fitted. In proof of this fitness one has but to note the wonderful records of the few here, and the many abroad, who have de-

serted medicine to take up public service of various kinds.

But while I approve of Dr. Langworthy's purpose I cannot wholly approve of his platform. The attempt to associate "Lincoln Republicanism" with the "Progressive" type seems a bit incongruous. To me, they have no resemblance worth speaking about. To be known as a Republican in Lincoln's day was to be known (and I carried that badge in both his campaigns—still have it) as a preserver of the union, with no further restraint upon individual freedom. The "secessionists" were the "Progressives".

I am quite sure that on many points of doctrine, my views would be in harmony with those of Dr. Langworthy. But, after voting the republican ticket from Grant to Coolidge inclusive, with a constantly mounting protest against the party's manifest favoritism to manufactures, as against agriculture, I will no longer be registered as "Republican". I may have to flock by myself for a while, because I cannot, yet, declare myself "Democrat", or "Farmer-Labor" ("Farm-Labor" has more meaning); but I would not be particularly elated to be elected to congress under a label that would get me nowhere, unless aligned with the "opposition".

And that, so long as the "protected industries" will supply the "Republican Meal Ticket", is just what a "Progressive" must expect.

H. B. Young.

March 7, 1928.

Dr. David S. Fairchild, Sr.,
Journal of the Iowa State Medical Society,
901 Equitable Building,
Des Moines, Iowa.
Dear Dr. Fairchild:

On the last day of 1927 the editor of the Journal of the American Chemical Society received for publication a manuscript describing the identification and separation of two posterior pituitary hormones. On February 4, 1928, the paper was published; reprints of it have just now reached me, and I am losing no time in seeing to it that you get one. Hence the enclosure.

Perhaps this is the first time we have ever sent you a reprint. I am not certain as to that. But of this there can be no doubt—that this piece of research work led to one of the most important endocrine chemical discoveries made since adrenalin was brought out many years ago. The editor of the Journal of the American Medical Association evidently saw the article in the chemical journal before the reprints came out, and made it the subject of his leading editorial in the issue for February 25.

You may or may not decide to comment in like fashion on the paper, but if you do I feel confident that you will find three points worthy of special emphasis: first, that the work of Kamm and his associates has effectively and for all time refuted the contention of some of the most prominent biochemists in the world that there was only one posterior

pituitary hormone; second, that the original (P. D. & Co.) pituitary extract, pituitrin, has always been assayed by the double method—oxytocic and pressor—and that now the stand of this firm has been fully justified; and third, that the isolation of the two principles, alpha-hypophamine (oxytocin) and beta-hypophamine (vasopressin), paves the way for physiologist, pharmacologist and clinician to illuminate hitherto obscure points in function, in pathogenesis, and in therapeutics.

Very truly yours,

Harry B. Mason,
Assistant to President.

March 15, 1928.

Dear Doctor:

Dr. A. D. McKinley, your fellow member, is chairman for Polk county of the "Early Diagnosis Campaign", a popular educational movement being conducted throughout the country all this month.

It has been endorsed by our society in formal resolution.

Health officials, the Public Welfare Bureau and its units, and practically all state and local voluntary organizations having any interest in health are giving it their support.

Four words, "Let your doctor decide", tell its purpose. It emphasizes through literature distribution, display advertising, speeches, films and the radio, the importance of prevention and early discovery of such major diseases as tuberculosis.

As individual physicians there are some ways in which you can help. You can put up a poster in your office—perhaps you can give leaflets to your patients—possibly you can arrange a speaking date at a meeting of some organization to which you belong. You can volunteer your own services as a speaker.

In regard to pamphlets, posters or speaking, write or phone Mrs. F. S. Pearce, who is acting as secretary for Dr. A. D. McKinley in this work, and whose temporary address is the Iowa Tuberculosis Association, 518 Frankel building, Market 1740.

Very truly yours,

Ralph H. Parker,
President.
L. K. Meredith,
Secretary.

HEART ASSOCIATION LUNCHEON

The Iowa Heart Association will hold a luncheon meeting on Friday, May 11th, at Cedar Rapids. All persons attending the State Medical Society are invited. Dr. Kennan Dunham will describe heart work in Cincinnati. Dr. Horace Korns, College of Medicine State University, will discuss technical aspects of heart disease. Officers will be elected.

Merrill M. Myers, M.D.

SOCIETY PROCEEDINGS

Cerro Gordo County Medical Society

The Cerro Gordo County Medical Society meeting was held February 21, 1928, at Mercy Hospital. The business session was followed by papers by the Mercy Hospital staff.

Amebiasis—Dr. C. L. Marston.

End Results of Kidney Stone—Dr. C. Tice.

Pericarditis with Effusion (joint paper)—Drs. C. Dakin and J. E. Marck.

Papers were discussed by Drs. B. F. Weston, B. R. Weston, C. P. Smith and George Crabb.

Following the papers a social meeting was enjoyed by members and very tasty refreshments were kindly served by the Sisters of the hospital.

Dallas-Guthrie County Medical Society

The Dallas-Guthrie County Medical Society held its quarterly meeting at the Arlington Hotel in Adel January 19, 1928.

Presidents' Address—Dr. George Ellvidge, Perry.

My Experience in Convulsions—Dr. B. M. Johnson, Casey.

Conservative Treatment of Fractures—Dr. J. W. Martin, Des Moines.

Dubuque County Medical Society

The January meeting was held January 10th at the Chamber of Commerce. Twenty-seven members were present. After the disposal of routine business, the following program was presented:

1. Hemangio-Endothelio-Sarcoma of the spinal cord—Drs. John C. Hancock and Wayne Johnson.

2. Student Days at Harvard—Dr. James Walter Heustis.

February 14th the Dubuque County Medical Society held an afternoon clinic, a banquet and the regular evening meeting. Dr. Louis J. Pollock, professor of Neurology, Northwestern University Medical School was the guest of the society.

In the afternoon Dr. Pollock demonstrated five cases, including an aneurysm of the cerebro-pontile angle; multiple sclerosis; progressive cerebellar staxia, and an obstetric paralysis.

At a seven o'clock dinner Dr. Pollock spoke on "Neurologic Phases of Industrial Surgery". At the meeting following his topic was "Peripheral Nerve Injuries". Thirty-one members and two guests were present. The day was a most profitable one, and Dr. Pollock was accorded a hearty vote of thanks for his kindness.

Donald C. Conzett, M.D., Sec'y.

Marshall County Medical Society

The Marshall County Medical Society held its meeting at the Pilgrim Hotel, Tuesday, February 7, 1928.

Commemorating the three hundredth anniversary

of the Discovery of the Circulation of the Blood by William Harvey.

- The following program was given:
- William Harvey—Dr. A. D. Woods, State Center.
 - Diseases of the Circulatory System—Dr. L. H. Ferris, Melbourne.
 - Diseases of the Blood—Dr. L. J. Wilkinson, Laurel.
 - Surgery of the Circulatory System—Dr. R. S. Grossman, Marshalltown.
- Following are the officers: Dr. A. C. Conaway, president; Dr. G. W. Harris, vice-president; Dr. W. W. Southwick, secretary.
- Dinner was served at 6:30 p. m.

Tama County Medical Society

The Tama County Medical Society elected the following officers for the year 1928:

- Dr. A. A. Crabbe, Traer, president.
- Dr. A. J. Farnham, Traer, vice-president.
- Dr. C. W. Maplethorpe, Toledo, secretary-treasurer.
- Dr. M. L. Allen, Tama, delegate to State Meeting.
- Dr. A. A. Crabbe, Traer, alternate.

C. W. Maplethorpe, Sec'y.

Woodbury County Medical Society

The February meeting of the Woodbury County Medical Society was held on Tuesday evening, February 21, 1928 at the Jackson Hotel, Sioux City.

Dr. P. B. McLaughlin discussed Local Anesthesia. Dr. Emma Ackerman spoke on General Anesthesia.

Dinner was served at 6:30 p. m.

Roscoe Jepson, Sec'y.

HOSPITAL NEWS NOTES

Maternity Hospital Group of Sioux City. President, Dr. Harold Brown; vice-president, Dr. J. A. Thomson; secretary, Dr. Roy E. Crowder; executive committee, Dr. H. S. Gillespie, Dr. Roscoe Jepson, Dr. C. F. Bergstresser and Dr. C. G. Gibson.

FIRST INTERNATIONAL OTO-RHINO-LARYNGOLOGICAL CONGRESS

American committee for attendance at the first International Oto-Rhino-Laryngological Congress sailing from New York, July 6, 1928.

Committee: Dr. Thomas J. Harris, New York; Dr. Robert L. Loughran, New York; Dr. George M. Coates, Philadelphia; Dr. Henry B. Orton, Newark, New Jersey; Dr. W. P. Wherry, Omaha, Nebraska; Major C. P. Mills, New York; Mr. P. G. B. Morriss.

Eye, ear, nose and throat doctors of the world will meet for the first time at the first International Congress of the Oto-Rhino-Laryngological Society, to be held in Copenhagen, Denmark, July 29 to August 1. That was the announcement made today by the American committee of the society, 25 Broadway, New York.

More than seventy-five specialists will represent the United States at the Congress. These doctors will also spend some time visiting at various large cities in France, England, Germany, Norway and Sweden. Clinical discussions will be held in these countries with European doctors presiding.

The Congress will concern itself with questions relating to the treatment of the many maladies, injuries and infections of the eye, ear, nose and throat. It has been reported from abroad that very successful methods have been found for sinus trouble and middle ear deafness.

PERSONAL MENTION

Dr. W. A. Rohlf and wife will leave Los Angeles for the Hawaiian Islands for a month's rest.

Drs. A. G. Hejinian, H. F. Dolan, F. B. Sigworth, E. G. Rawson, and J. D. Paul of Anamosa attended the Linn-Jones County Medical Society at the Montrose Hotel, Cedar Rapids.

Dr. F. L. Vander Veer, a physician in Cedar Falls for twenty-five years, has moved to Blue Grass, Scott county, near Davenport, and will take up the practice of his brother Dr. W. I. Vander Veer who died about two weeks ago.

MARRIAGES

Dr. Jeannette F. Throckmorton, formerly of Des Moines, and Dr. Charles N. Dean of Sumner, Illinois, were married March 1, in Derby, Iowa.

OBITUARY

Dr. Charles Emmett Halloway of Des Moines a graduate of the Chicgo Homeopathic Medical Society, of the Iowa Methodist, Lutheran, and Broadlawn Hospitals, aged fifty-seven; died October 15, 1927, of endocarditis.

BOOK REVIEWS

DISEASES OF THE MOUTH

By Sterling V. Mead, D.D.S., Professor of Oral Surgery of Georgetown Dental School, Professor of Diseases of the Mouth at Georgetown Medical School. Contains 274 Original Illustrations and 29 Full Page Color Plates. Published by C. V. Mosby, St. Louis, Mo. Price, \$10.00.

The purpose of this volume is to correlate information valuable alike to the physician and the dentist. The author, from his experience as a teacher of both medical and dental students, has written with understanding and knowing thoroughness. Certainly every physician has problems of serious moment reflected in systemic disease as a result of diseases of the mouth and especially the teeth. Many chapters of the book are devoted to a discussion of the

teeth from the dentists point of view, still each of these chapters contain much valuable information on this subject for the physician. The chapter devoted to a discussion of stomatitis is particularly interesting to the physician and the concluding chapter entitled, "Relationship of Oral Sepsis and Systemic Disturbances" is in itself well worth the price of the volume to a medical practitioner.

The volume is well illustrated. Many of the illustrations are radiograms. R. R. S.

LECTURES ON INTERNAL MEDICINE, DELIVERED IN THE UNITED STATES, 1926

By Knud Faber, M.D., Professor of Internal Medicine, University of Copenhagen, Denmark, with 43 Figures and Charts. Paul B. Hoeber, Inc., New York, 1927. Price, \$3.00.

The Scandinavian countries have contributed so much to the development of the United States and have furnished so many useful and desirable citizens and have identified themselves so fully with our governmental aspirations for the best, that we feel a degree of friendship, sympathy and admiration that lead us to welcome their great men in every walk of life to come to us, and when Professor Faber comes to the United States, on invitation, to participate in the meeting of the American College of Physicians, it was but natural that learned medical societies should invite him to deliver lectures before them. Therefore, invitations were extended by the College of Physicians of Philadelphia; the Medical Schools of Baltimore and Boston; and the Rockefeller Institute of Medical Research.

The four special lectures through the courtesy and enterprise of Paul B. Hoeber have been published and offered to the American medical profession. The titles of the lectures are: The Intestinal Origin of Pernicious Anemia; Benign Glycasuria; Historical Outline of Medical Therapy, a Sketch. The book contains 147 pages of interesting matter.

THE NEW MEDICAL FOLLIES

By Morrice Fishbein, M.D., Editor of Journal of American Medical Association. Boni & Liveright, New York, 1927.

This is an encyclopedia of Cults and Quackeries. The United States has had the reputation of standing at the head of all nations in the cultivation of cults and healers, and it seemed desirable that some one with the knowledge, patience and industry should work out an encyclopedia which would furnish the curious with a means of knowing the remarkable variety of methods of curing all kinds of disease. From a viewing of that magnificent group of buildings known as the New York Medical Center to a reviewer of Dr. Fishbein's book is as interesting a psychological study as can be found in a Veterans'

Bureau Hospital in the mentally disturbed wards. How is it possible that in a country where such immense sums are expended in the investigation of problems of disease, that along side by side are found such strange ideas of cure as would astonish the most backward countries of the Old World, but it is even so. Some of these strange things are inaugurated in good faith and for the purpose of doing good, but how many have a distinct commercial purpose and end. Of course, these things could not happen without a receptive state of mind on the part of the public. We can understand the viewpoint of most of these wonderful doctrines, but how an intelligent and educated public accept and endorse them is the great psychological question, and especially, when such strong followings often comes from colleges, universities and theological seminaries. But there is no end to this kind of speculation.

Dr. Fishbein has rendered a distinct service in collecting and pointing out this multitude of Fads and Follies that burden the general public in the United States.

MINOR SURGERY

By Arthur E. Hertzler, M.D., F.A.C.S., Chief Surgeon Halstead Hospital, and Victor E. Chesky, A.B., M.D., F.A.C.S., Resident Surgeon Halstead Hospital. With 438 Illustrations. The C. V. Mosby Company, St. Louis, 1927.

The purpose of this book is to present minor surgery in a manner helpful to the dispensary student or to the general practitioner in dealing with minor injuries and conditions.

The first section is devoted to suture material and sutures surgical dressings, the application of bandages, the suturing of wounds by different methods, tying of knots and many things necessary in relation to the secure application of bandages for different purposes and different parts of the body. The management of wounds, hemorrhage, transfusion, inflammation and infections, affections of the scalp and the cranium. Diseases of the nose, nasopharynx and tonsils, diseases of the mouth and jaws, injuries of the face, affections of the neck. Diseases of the abdominal walls, of the back and spine, of the anal region, male and female genital organs. Injuries of the upper and lower extremities, and so on to include accidents, injuries and diseases of all parts of the body.

The book is helpful to the general practitioner in the ordinary injuries and diseases of every day practice. No attempt is made to present or discuss pathological conditions, but to point out what should be done to secure desired results. The hospital intern and dispensary student will find the book especially helpful. We can recall many earlier experiences when such a book as this would have saved us unpleasant things. The many illustrations will be particularly helpful.

AMERICAN ILLUSTRATED MEDICAL DICTIONARY (Dorland)

The Terms Used in Medicine, Surgery, Biology, Dentistry, Pharmacy, Chemistry, Nursing, Veterinary Medicine and Kindred Branches. Edited by W. A. Newman Dorland, M.D., Member Committee on Nomenclature and Classification of Diseases of American Medical Association. Fourteenth Edition, Revised and Enlarged. Octavo of 1388 Pages; 319 Illustrations; 107 in Colors. W. B. Saunders Company, 1927. Flexible Binding. Plain, \$7.00 Net. Thumb Index \$7.50 Net.

We need only present the announcement of the new edition. To indicate the fact of a new edition is to convince the individual members of the medical profession of the necessity and value of the Dorland dictionary. It is one of the books which should always be at hand together with a good English dictionary, to be constantly referred to.

PRACTICAL LECTURES ON THE SPECIAL- TIES OF MEDICINE AND SURGERY

Delivered Under the Auspices of the Medical Society of the County of Kings, Brooklyn, New York. With 110 Illustrations. (Second Series 1924-1926) Paul B. Hoeber, Inc., New York, 1927. Price \$7.00.

This volume consists of lectures at the medical building of the King's County Medical Society by men of special training, before a general medical audience, Friday nights. The series of lectures received so much favor that it was decided to publish them in book form, with very gratifying success.

Thirty-eight papers are presented in this series, all of high character and constitute interesting reading.

THIS TOOTH PROPOSITION

Dealing with Problems that Give Importance to the Ever Popular Subject of Teeth, by Matthew Joseph Reidy, D.D.S. The Iowa Homestead Press, Des Moines, Iowa.

Modern medicine is preventive medicine. The program of prevention has rightly become popular both to the laity and the professions. It is timely that a book should be written by a dental surgeon devoted to a common sense discussion of dental hygiene and the relation of dental abnormalities to systemic disease. This small volume prepared by Dr. Reidy appears well written and highly useful in this program of health conservation.

In the opening chapter of this book the author presents some general considerations relative to the anatomy and physiology of tooth development. He follows this by a discussion of the value of good teeth as contrasted with poor teeth as they reflect on general health. The latter half of the book is devoted to problems in preventive dentistry stressing the educational program in schools aiding this program.

The volume is written in non-technical language and can be appreciated by the layman as well as the physician. Its generous circulation cannot fail to promote interest in this important subject. The pleasing style of presentation will appeal to every reader.

R. R. S.

MODERN BAKING POWDER, AN EFFECTIVE, HEALTHFUL LEAVENING AGENT

Compiled by Juanita E. Darrah, A.B., A.M., 1927. The Commonwealth Press, Inc., Chicago, Illinois, \$1.00.

This small volume is a compilation of evidence to the effect that modern baking powder contains no element injurious to health. The point of contention seems to be a difference in the relative values of potassium acid tartrate as used by some manufacturers and sodium aluminum sulphate used by others. The volume is devoted to a defense of the latter salt. Any physician interested in the subject will find this small book well written and apparently scientifically sound.

R. R. S.

PENDULUM BABY'S HEALTH DAY BY DAY

Published by the Professional Press, Incorporated, 17 N. Wabash Avenue, Chicago.

This is a conveniently small, handsomely bound book of daily record charts for the mother's use. At the end of each week's record, a page is provided for the summary of the week. In the back of the book are a few pages devoted to Infant Hygiene and suggestions regarding food. To the writer, the book makes no appeal, since it would seem that such a complete record would prove of little value with the normal, healthy infant and would soon become a burden upon the mother.

R. R. S.

THE NORMAL DIET

A Simple Statement of the Fundamental Principles of Diet for the Mutual Use of Physicians and Patients, by W. D. Sansum, M.S., M.D., F.A.C.P. Second Edition. The C. V. Mosby Co., St. Louis. Price \$5.00.

"An effort to prevent illness, relieve suffering and prolong life through the proper use of food", the author's dedication of this volume gives insight to its contents. The treatise differs widely from the usual presentation of this subject in the fact that we find here a discussion of the fundamental principles of normal diet. The protein, mineral, vitamin, water and bulk requirement of the body are discussed in separate chapters. The acid, ash type and the acetone type of acidosis are ably discussed in appropriate chapters. The presentation is made in clear, expressive, nontechnical language unhindered by lengthy discussion of non-essentials.

The book is highly practical. Diets are suggested but always with sufficient latitude of choice to meet the needs of individual taste. The caloric need of the body is discussed but diets are not offered on

the caloric basis. Any intelligent person can read and understand this book and profit by the reading. We recommend this small book to our readers without reservation.

R. R. S.

INDUSTRIAL MONTH

April has been designated as "Industrial Month" by the Abbott Laboratories. During this period a survey of the principal industries in various sections of the country will be made to determine to what extent the following Abbott and D.R.L. items are being used in industrial medicine:

Butyn, for the removal of foreign substances from the eye.

Butesin picrate ointment, the pain relieving antiseptic dressing for burns.

Chlorazene, the simplified Dakin antiseptic for immediate application to wounds, cuts and bruises to prevent infection.

Metaphen, the powerful mercurial germicide with a phenol co-efficient of over 500; non-irritating, stainless and practically non-toxic.

Izal, a white emulsion used for disinfectant purposes. Phenol co-efficient 10, by U. S. Hygienic Laboratory method.

Dichloramine-T, Chlorcosane and Parresined Lace-Mesh Dressing.

A special booklet, "The Industrial Medicine Chest"

has been prepared by the Abbott Laboratories, North Chicago, Illinois, for distribution to physicians interested in industrial medicine.

FOR THE TREATMENT OF PNEUMONIA

The vaccine treatment of pneumonia has not given very satisfactory results. With the purpose of obviating the chief difficulty in the vaccine therapy of this disease, namely tardiness of action, Parke, Davis & Co. have brought out a new antigen, one that represents the vaccine principle but acts much more rapidly. It is called pneumococcus immunogen.

Vaccines are killed bacteria. Pneumococcus immunogen is obtained from cultures of the three specific types of pneumococcus, but there are no bacteria, dead or alive, in it. It seems, from the researches conducted and published by Parke, Davis & Co., that the antigenic principle of bacteria is not so much in the bacteria as on them; it can be washed off. Pneumococcus immunogen consists of the washings of pneumococci, tested serologically to demonstrate its superiority to a corresponding bacterial vaccine.

The immunogen is administered, as a rule, intramuscularly, though it can be given intravenously in smaller doses; and the injections may be repeated at intervals of four or five hours.

Literature on pneumococcus immunogen is offered to physicians by Parke, Davis & Co.

WHO PRACTICES WHAT AND WHERE

Will you help us answer this question?

The Physicians' Directory of your State Journal should carry the professional card of every physician who hopes to enjoy the practice of a specialty. What better guide can one follow in referring a patient for special care than that offered in the Official Journal of your State Society?

Turn now to pages xviii to xxi of this issue—jot down your copy for card—enclose your check for \$12.00 for a full year's run—Address to

BUSINESS MANAGER,

Journal of the Iowa State Medical Society
902 Bankers Trust Bldg. DES MOINES, IOWA

The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, MAY, 1928

No. 5

"AND THE CAUSE I KNEW NOT, I SEARCHED OUT"*

SIR NORMAN WALKER, M.D., F.R.C.P. (Edin.)
Consulting Physician for Diseases of the Skin
The Royal Infirmary
Edinburgh, Scotland

In the fifteenth and sixteenth verses of the twenty-ninth chapter of the book of Job, we find these words: "I was eyes to the blind and feet I was to the lame. I was a father to the poor and the cause I knew not and searched out." It is these last words that I take as my text tonight and I quote the preceding words to justify making use of them in a medical capacity. They refer to the ophthalmologist and the orthopedic surgeon, and to the lady almoner. I am going to apply them to dermatology.

When I was a student of medicine and later of dermatology, we were, so far as that subject is concerned, at the stage of observation and recording of facts. Most attention was devoted to the description of the lesions as they occurred on the skin, to their distribution, to their individual peculiarities and to the differences between them. The variations of eruptions are so numerous that an enormous amount of work was involved and much useful information was recorded, of which we of today reap the benefit. They blazed the track, their successors laid down macadam and asphalt. Metaphorically I suppose I may say that our successors will make the road as clear as your concrete roads of today. But the causes of the various eruptions were only surmised and a good deal of fanciful speculation was indulged in regarding them. Bacteriology was only in its infancy and even in my student days it may be said that probably the majority of dermatologists were by no means convinced that lupus was caused by the tubercle bacillus.

Many of the diseases, I might almost say most of the skin diseases, which we now know to be due to a definite organism, were regarded as

"gouty" or "nervous" in origin. I suppose the words satisfied the wants of the day and generation but they signify very little today. I do not propose tonight to deal with any of the more common cause of diseases and I do not intend to touch on bacteriology.

When I became a teacher of dermatology it was my duty to demonstrate cases to students and to point out to them the peculiarities of the different diseases, why one case was labeled this and another that. I did not always find it easy to satisfy my examiners and I found myself compelled to give more and more thought to the question of causes. Let me here say in passing how much teachers learn from the questions of their students, if these questions are put and answered in the right spirit. I do not refer to the clever person who comes up at the end of a lecture to put conundrums to his teacher, but the student who has a real difficulty which he wishes to have cleared up does his teacher a great service. Often of course the teacher can answer the question at once but not infrequently the answer is unsatisfactory to himself and he is led to consider the subject more fully, usually to his own benefit and that of his students.

I had one great advantage in attacking the subject of the causes of skin diseases, for I began my clinical work under one whose fame is over the whole world under another name. I refer to Dr. Joseph Bell who, it is an open secret, was the model from which Conan Doyle drew his greatest and most famous character — Sherlock Holmes.

Were it not that I can see already that this address is going to tax your endurance heavily I could give many interesting reminiscences of his teaching. It is to my having in some small measure absorbed his detective spirit that you are here listening to me tonight, for it is to the detective spirit in the detection of the causes of the diseases of the skin that I proposed to direct your thoughts, as the clergy say, for a few minutes this evening.

*Address to the Des Moines Academy of Medicine, February 9, 1928.

I propose to relate to you a few personal experiences which I think will demonstrate how important it is to worry out the cause. And first a few words about the method of inquiry. One day an old college friend turned up at my clinic and heard me searchingly investigate a case of the sort which I shall presently relate to you. At the end of the clinic when the students had gone, he said to me: "Walker you should have been an advocate." He meant it as a compliment and as such I modestly accepted it. But our attitude to patients is not that of an advocate. Some, if not most, of you have probably already made an appearance in the law courts. I mean of course in the witness box. There you were dealt with by two lawyers in succession. The first, on whose side I think you are unfortunately supposed to be, tries to get you to say rather more than you are prepared to say and more emphatically than you are disposed to do. Then comes the lawyer on the other side, and he tries to get you to say what you do not want to say and if possible he tries to get you to contradict yourself. That is not the attitude of the detective doctor; what he wants to get at is the truth. Let the patient tell his own story. Don't lead him. Encourage him to expand what seem to you useful clues and put all your questions in such a way that it is equally easy to answer yes or no.

This is the plan I constantly try to adopt and I now proceed to relate to you some cases where the method has resulted in much benefit to the patient and not a little credit to myself.

I must start out with the assumption that you will accept my statement that the skin is, more than any other organ of the body except the stomach, the subject of idiosyncrasies. I can illustrate this by facts which will appeal to all. In our surgical training we are brought into contact with many antiseptics and students will have observed that one surgeon abhors carbolic, while another has nothing good to say of perchloride of mercury. One surgeon can plunge his hands freely into a 1 to 20 carbolic lotion and suffer no inconvenience, while a relatively equal sublimate solution irritates his skin. Formalin is another substance which picks out certain skins on which to show its effects, they are commonly demonstrated in the dissecting room—you will not find it easy to explain to the sufferer that it cannot be due to that substance because ninety-nine other persons can work with it with impunity.

The ordinary mortal, however, is not brought into contact, frequently at least, with these antiseptics, important though they be. But his skin shows just the same idiosyncrasies as that of the

surgeon. The irritant which most persons are exposed to which picks out idiosyncrasies is soap. I am not going to give you a black list of soaps. I believe soaps to be just like antiseptics. There are persons to whom any particular soap may be irritating, I care not whether it is medicated or unmedicated, over-fatty or neutral, and in cases of inflammation of the skin of the hands, and to a less degree the face, it is, after the patient's work, the first thing to be considered.

One of my former students in practice in the Midlands of England applied this teaching with much credit to himself and benefit to a patient. The patient was an alderman who had suffered for a long time from what was called gouty eczema of the hands. He made frequent visits to Harrogate—our chief spa—and sometimes benefited and sometimes did not. When my friend became his doctor he applied the precepts of his teacher and investigated the question of soap. In a short time he satisfied himself and the alderman that the perhaps rather cherished gouty eczema was due to Sunlight soap. I do not wish you to conclude that I am condemning Sunlight soap. It is true that I share with the alderman an idiosyncrasy towards it, but lots of people can use Sunlight soap with impunity, and judging by the capital of the firm, millions of them must do so.

One day a woman came to my out-patient department with her hands and arms acutely inflamed. She had been a washerwoman for years and had never suffered any particular inconvenience, and therefore soap—as soap—was exonerated from blame. A few minutes' inquiry, however, disclosed the fact that she had been tempted by a newspaper advertisement to employ a soap which promised to save half the labor. (Watson's Matchless Cleanser). It may have that effect in the vast majority of persons, but for some weeks my patient was unable to labor at all on account of the condition of her arms. When she recovered she went back to her old labors and old soap with impunity.

When white feather boas were the fashion I traced three or four cases of dermatitis to the irritation of the soap Lux in which they had been washed. I have seen dermatitis in a child caused by a piece of soap presented by its aunt which floated in the bath, and not a few cases of dermatitis of the beard region caused by the desertion of a familiar and tried shaving soap for a more tempting looking article put up in gaily colored paper. The mention of shaving soaps recalls to me a particularly interesting case. This patient was an hotelkeeper and he came to con-

sult me about an eruption (periodic) on his face. It was of the type one associates with an external irritant and I inquired closely as to the possibility of its being induced by some plant. He assured me that this was impossible as the only plants which he ever handled were familiar common ones. On his next visit, however, he told me that he had discovered that one of the plants which he had referred to as common and familiar was a Chinese primrose. I fear I too readily assumed that the cause of the eruption was found. The plant was thrown out but nevertheless the attacks continued at intervals. I then suggested to him the plan, which I have often found helpful, of keeping a diary with two columns. In one of these he was to note every detail of his daily life and in the other notes of the disease. In a few weeks we were on the track of the cause, for it was evident that his attacks were invariably associated with visits to one definite town. Following up the clue I ascertained that the train by which he had to leave home to visit this particular town started very early and instead of shaving at home he got shaved by a barber in that town after breakfast. I advised him in future to get up a little earlier on this morning and shave at home. He has had no more attacks. As I had no desire to find myself in the witness box I made no further inquiries as to the particular soap used by his barber.

So much for soaps.

It is a natural passage to cosmetics. One of the earliest cases in my experience was that of a nurse who suffered from recurrent attacks of dermatitis on her face. The attack in which I first saw her had appeared on the second day of her stay in a coast town where she had gone to nurse a patient, and was so severe that she had to come home. Under a soothing lotion the eruption soon disappeared and was attributed to the sea air. This theory was shaken, however, by the next two attacks which both occurred in inland towns. The fact that they had all occurred about two days after going to a new case began to arouse suspicion regarding cosmetics, but I got no further in the case. A later student of mine who was very interested was fortunate enough to detect the cause. Naturally she wished to look her best when going to a new case and as a rule washed her hair and applied to it some beautifying preparation. She was probably rather ashamed and did not confide to him the name of the preparation. I understand that our Parisian colleagues are so familiar with this type of eruption that they can almost name the preparation used in some cases. It might gratify the mayor

of Chicago to know that the worst one is named La Royale.

A similar case occurred in an elderly lady. She too had a history of periodic eruptions with complete freedom for longish periods. She herself attributed the eruption to nervousness and told me that it always occurred before visitors came to stay at her country house. She had a large greenhouse and I inquired particularly as to plants, for I thought it possible that she might devote more attention to these when guests were expected. It is a pretty custom to put flowers in the guests' bedrooms. She promised to keep her eyes open in this direction. Two months later a gentleman called on me and introduced himself as the lady's son and told me that his mother's maid had confided to him that, just as in the other case, some special hair beautifying preparation was used when visitors were expected. And these cases are by no means confined to the fair sex. The fact that certain hair dyes produce eruptions is so well-known that I need hardly spend much time on it, but it is a subject which requires tactful approach. I have met with a considerable number of patients who owed the eruption on their faces and necks to the use of preparations for keeping the hair in order during these more violent dances which have invaded our country in recent years. In the confidence of these walls I may mention that a preparation called "Anzora" has in my experience twice been responsible for this type of eruption and no doubt others may also be to blame.

I think I may include under cosmetics the case of a patient who suffered from an eruption on his lips. He was an engineer and gave me a very clear account indeed of his trouble. He said that every alternate Monday he began to feel irritation followed by swelling and excretion. It was generally well by Thursday or Friday but time and again it reappeared on the alternate Mondays. He consulted me during the war period when all decent people were working considerably in excess of capacity. He told me that he and his partner each worked thirteen days in a fortnight, taking alternate Sundays off. My suspicions went to a dentifrice, but it was a difficult question to ask him if he only washed his teeth once a fortnight. I had to make inquiries in a more round-a-bout method. Having ascertained that it was the Monday following the rest Sundays that the attacks occurred I got him to give me a detailed account of his day. He told me that he had breakfast in bed, read the Sunday papers and rose about eleven to embark on a lazy form of toilet. He had a warm bath, a fresh

razor blade and then to my joy out it came, he used on that day a particular dentifrice, on the other days he was content with water. He abandoned the use of the dentifrice and three weeks after I saw him he wrote to say that there had been no further attacks.

I mentioned a few minutes ago the occurrence of dermatitis after washing feather boas in Lux. I was consulted one day by a young lady who complained of an eruption on her neck which had developed the previous winter. She said she was perfectly free all summer and had been annoyed by its recurrence—she consulted me early in December. She was wearing with obvious satisfaction a very handsome sable boa, and after beating about the bush I inquired into its history. It was an interesting one. It had been the property of an elderly aunt who, instead of handing it on to the next generation during her life-time had treasured it in a box presumably with camphor and bequeathed it to her niece in her will. The niece, aware of its long sojourn in camphor, thought it well to have it sent to the cleaners and it was pretty clear as I pressed my examination she suspected what I was getting at and considerably resented it. Indeed when I finally reached the stage of saying that my suspicions were so strong that the first thing to be done was to leave off wearing it she was quite rude. I managed to smooth her down and got her to promise to take my advice. She wrote me a grateful and penitent letter to say that there was no doubt that the boa had been responsible. I had some suspicion that formalin had been used in doing up the fur and having tactfully ascertained the address of the furrier I wrote a letter asking if I could be informed what chemical had been used in its cleansing. I regret however to say that the reply which I received was not in the courteous terms in which mine had been written and it contained no information.

I saw a patient who was employed in the telegraph service. He suffered from eczema of his hands. Enquiry into the history showed that it always got better when he went for a holiday, and returned again when he went back to work. Now there must be many varieties of employment in the telegraph service, and I therefore went more closely into his actual occupation, and I found that his duties involved the inspection of the connections, and these he was in the habit of keeping clean by turpentine. It had never occurred to him that that might have had anything to do with it. He regarded it as a necessary agent in his work, and had never thought of substituting something else for turpentine. But there

are lots of substances which are just as cleansing as turpentine, and I recommended him to try benzol, xylol, and such like. The eczema disappeared. It was the turpentine to which his skin showed an idiosyncrasy.

One day I was consulted by a distinguished engineer on account of a frequently recurring eczema on his fingers. He told me that the eruption altogether disappeared during a fishing holiday in Iceland, and that his fingers remained well on his return home when he went to Lanarkshire shooting. Soon after resuming his work the eruption reappeared. The ordinary inquiries about hobbies elicited nothing relevant but it was eventually discovered that he was in the habit of personally photographing his more important and secret plans, developing them himself. "Metol" was the developer used and to it undoubtedly was the eruption due. It had never occurred either to him or his doctor that this might be the cause of the irritation.

One day I saw a young lady who had a patch of inflammation on her left wrist. She told me that it had lasted off and on for years, that the eruption had never appeared on any other part of the body, and that sometimes she would be free from the eruption for months. She did not associate anything with the eruption, and it was of course easy to exclude soaps and the like, for capable as I believe the skin to be of idiosyncrasies, I have not yet met with a skin which carried it so far as to have an idiosyncrasy of the skin of one wrist. But my enquiries quickened her powers of observation, and she returned to tell me that she had discovered the cause of the eruption, and she produced it. It was a bracelet to which was attached what is called a "lucky nut" and she told me that she had found that the wearing of this was invariably followed by an attack. I have not been able to determine the nature of the nut in question, which came from the West Indies.

But it is I confess the plant cases which interest me most, and some of them contain an element of humor which may serve to lighten these remarks. While certain plants are notorious irritants, a great many are irritating to certain persons. Speaking in America I am bound to give pride of place to the American ivy. It is a plant which does not grow readily in our country, but some soils and some situations seem to suit it, and cases now and again turn up. I remember in my student days Sir Thomas Fraser showing us a case in an apprentice in the Royal Botanic Gardens, and mentioning that it was the prevailing custom to give the job of pruning the plant to the

junior apprentice. My next experience was the case of a tramp who turned up among my out-patients. The eruption was a severe one and so characteristic that I at once suspected the cause and made very careful, and I hope very judicious inquiries, as to the manner in which he had been occupying his time during the last few days. I got the following interesting history. He had been on the tramp in the Highlands, and one day passing a large mansion, he applied for assistance. The gardener, to whom he was directed told him he would give him half a crown and his dinner if he would prune a certain creeper upon the side of the mansion. He did this, got his dinner and his half crown and came away perfectly satisfied; and I believe that nothing I said interfered with his satisfaction. But I elicited from him the name of the mansion, and I wrote to the gardener, enquiring the nature of creeper, and promising that it should go no further. He replied that it was the *Rhus Toxicodendron*.

My friend the late Dr. Frank----- describes a series of cases all coming to hospital in successive years and all from one village near by where a farm house was. It was discovered to be clothed with the poisonous ivy.

Some years ago I saw a young lady who had an eruption on her face and hands which had given rise to a great deal of trouble. The table maid in the family was attacked by a similar eruption of papules upon the face and hands, and the doctor suspected smallpox. This suspicion was strengthened when on the following day this young lady developed a similar eruption. Another doctor was called in consultation, and it was decided that the disease was not smallpox and that she had better come to me for my opinion. I found that there had been a dinner party in the house and the young lady and the table maid had decorated the table with some beautiful autumn leaves which had been sent by a friend from America. I had the leaves sent to me; they were those of the *Rhus Toxicodendron*.

I think the most striking case in my experience is that of a lady whom I first saw many years ago in consultation with Dr. Berry Hart when she was about ten years old. I was young, I had not fully realized the importance of searching for the cause and I agreed to the diagnosis of eczema. I prescribed to the best of my ability and I heard no more of the case for twelve years. I was then asked by a friend who had become her doctor if I would take the case off his hands for he could make nothing of it. In these twelve years she had seen several other consultants without deriving any permanent benefit. She had now reached

the age of twenty-two and was suffering from an edematous eczema of the face. There were numerous weeping, crusted areas, and her appearance was certainly not prepossessing. By this time I had learned a little of the history of the attacks. It at once aroused my attention for her mother assured me that from August to April the girl remained perfectly well, while during the rest of the year she was hardly ever free from the eruption. So definite was this observation that when the girl was at school in Brussels her parents brought her home at that period so that she might have her trouble in familiar surroundings. Their apprehensions were realized. I cross-examined rather severely, but was unable to shake the evidence. I then inquired into everything that seemed to me possible as a cause. The family lived in the south side of Edinburgh, in a house with a large garden and a greenhouse, while the walls of the house were covered with a creeper. The leaves of this were submitted to Professor Bayley Balfour and he reported that there was nothing suspicious in the leaves. I had fortunately to do with very intelligent people, and though they were very skeptical they agreed to follow my advice as to abstention from handling any kind of flower. The result was amazing. The eruption rapidly disappeared and in the remainder of the summer of 1905 she had no more attacks. She had a slight attack in the spring of 1906 which she explained by having handled flowers at a party in a moment of forgetfulness. I know that lady still, she is married and has four children, and has had no further trouble. We were unable to trace definitely the flowers concerned but the lady herself is most suspicious of violets and primroses.

A lady from Haddingtonshire consulted me on account of constantly recurring attacks of eczema of her fingers. She was indignant when I suggested that gardening might have anything to do with it; although she admitted that she was fond of it and worked a good deal in her greenhouse. I told her that I believed that if she would give that up there was a good chance of her eczema disappearing. She was extremely skeptical and left in a state of considerable indignation. Only six weeks ago I heard accidentally from a friend of hers that she was loudly singing my praises in her neighborhood, and that she had given up gardening.

The plant which is most commonly guilty in this country is the Chinese primrose, and I think I shall depart from chronological order and put one of the most striking cases that I have come across first. A doctor in the neighborhood of

Edinburgh telephoned me, telling me that he was sending in a patient to see me with Primrose dermatitis. I said to him if that is the cause is there any use of her coming to see me? And he replied that the lady was very anxious to have my opinion. I saw her in the afternoon, and found a not very severe case, and apparently her chief motive in coming was to relate to me her very remarkable history. She was a well-to-do old lady and fifteen or sixteen-years ago was attacked with what was called eczema. It was attributed to gout and she was sent to Harrogate, and the eruption rapidly disappeared, and she left with advice no doubt as to food. Shortly after coming home the eruption reappeared, and this time Buxton was selected. The result was as satisfactory as in Harrogate, but on her return home the eruption reappeared. This time she went to Strathpeffer, where for the first time a suspicion that the case was not eczema was aroused, and Dr. Bruce followed a common custom of sending mysterious cases to Mr. Jonathan Hutchinson. Mr. Hutchinson advised her to go to South Wales, and there the eruption disappeared. She was well endowed with this world's goods, but the constant journeyings became wearisome, and she determined to put up with her gout and her eczema. One day her gardener came to her with a cutting, worn and grimy, from the "Gardeners' Magazine" and said, "I was wondering, Miss, if this had anything to do with your complaint". He showed her the cutting of an article on Primula Dermatitis, and that afternoon all the primulas in her greenhouse were consigned to the rubbish heap. From that day until the day she saw me her eczema vanished. She was very much interested in the subject, and told me of a case in a friend nearly as interesting as her own. She went to visit an old friend, whose husband was a schoolmaster. He was one of those who are spoken of as a martyr to gouty eczema, and spent his summers at Wiesbaden. I think she told me he had been there for twelve consecutive years.

In the hall between his private residence and the schoolhouse was a banked arrangement on which dozens of the obnoxious plants stood, and he was in the habit, on passing through, of picking off the withered leaves. Her experience was the same as my own has often been, namely, that her advice was received with ridicule. The idea that this valued gouty eczema could be due to so simple a cause as picking leaves off a plant was not readily entertained; but eventually it was taken, and the gentleman was able subsequently to spend his holidays wherever his fancy took

him. I was of course anxious to hear how she had got a fresh attack; and her case was interesting as showing how little may produce the eruption in those susceptible. The day before her attack she had called upon a congenial spirit in the gardening line, and they had spent a considerable time in the other lady's greenhouse. They had stood in one place discussing plants—not Primulas—but it was found that between her and the door, which was open, two or three of these plants stood, and apparently the near proximity had been enough to cause the eruption.

Curiously another case, seen in consultation within a fortnight of that one, was produced in the same way without handling the plant. I was asked one day to see a case in the North side of Edinburgh, in consultation with Dr. James Wilson. The patient was an old lady, and he told me that this eruption had recurred again and again within the last two months. He said, "It always gets well when I put her to bed, and recurs as soon as she gets up". I found that he meant that it really got quite well in bed, and that its reappearance on getting up was really remarkable significant.

When I went into the dining room to discuss the case, the cause was seen standing in the pot in the middle of the table, and the history of it was this: The old lady and her daughter had presided at one of the tables at a church soiree. Plants had been supplied to decorate the tables by one of the elders, who was a florist, and he very kindly said that the ladies might each take one of the plants home. The subsequent result confirmed the diagnosis.

Occupational eruptions are of course easier to diagnose and carpenters who have to deal with fancy woods are not infrequently affected. The satin-wood used in what always appeals to me as the somewhat unnecessarily ornate decoration of steamer cabins is quite frequently the cause of dermatitis. Most of the wood cases in Edinburgh are due to handling teak. This is well known among workmen and though they do not know the word idiosyncrasy they are aware that some men can work with it with impunity and others not. I had an interesting experience with one case where two attacks of teak dermatitis so sensitized a man's skin that he was for a time unable to work with pitch pine without an eruption developing. I only mention this matter for the sake of the younger men among us. I have seen cases in young ladies who had as a hobby wood carving or poker work. The hard woods used are irritating to some skins and when the fashion

comes in again, as come it will, some of the young ladies will suffer.

It was almost inevitable that the cases which I have to relate should be mainly successful. Had they not been so I would not have been able to use them for illustrating my point.

But one failure I can point to, and I trust I shall not soon forget the lesson it taught me. I was within touch of having the honor of being the discoverer of the cause of the beer poisoning epidemic which aroused so much curiosity and interest in the North of England in the early years of this century. I was spending a holiday in Cumberland and one day I received an invitation to the meeting of the local branch of the British Medical Association at Workington. The letter held out as an additional inducement to the meeting and the dinner the opportunity of seeing a series of mysterious cases of skin disease which were puzzling the local profession.

I went, I saw the cases and I examined and cross-examined. I asked about their homes, their work, their recreations, everything I could think of. A year or two afterwards I came across the notes I made. One of these was "Looks like a drug rash but none discovered". My last question was, "What about the water supply?" to which old Dr. Dudgeon, a worthy old Cumbrian now gone to his rest promptly replied, "Well, Doctor, whatever it is it cannie be that, for none o' them ever drinks any".

The cause I knew not, I did not on that occasion succeed in searching out, but the fault was not in the method but in my stupidity. There were two other texts I did not give heed to. They are from the New Testament and I commend them to you in concluding this part of my lecture:—"Seek 'till ye find" and "Seek and ye shall find."

No. 7, Manor Place.

A CASE OF MEMORY LOSS FOLLOWED BY COMPLETE RECOVERY

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The differential diagnoses between cases involving out-and-out pretending, malingering, more widely recognized hysterical symptomatology, and organic syndromes often confound the medical practitioner. Probably nowhere more frequently than in the field of mental aberrations do such conditions arise. The psychiatrist is continually being confronted with factitious ulcers, requests for "castration" operations, and

singular involvements of the sensorium and motorium. Consequently he finds himself* frequently scouting past complaints, sicknesses, accidents, and operations of each presenting case in the light of such experience.

To clarify the concept of the role that the mind plays under such circumstances it may be well to elaborate upon such terms as pretending, malingering and hysteria. To all of us is attributed a certain amount of hysteria—the personality traits which usually tend to set the individuality or ego into relief are largely hysterical in nature. Simple pretending carries with itself full insight into the pretense and has a general significance that is distinct from hysteria connotation. Malingering is now generally conceded to be the manifestation of an outstanding hysterical personality. In other words the idea of malingering doesn't occur with motivating force to the relatively hysteria-free individual. Because the hysterical personality expresses itself in so many ways that are important to us it appears that an intensive study of the proclivities comprising it is indicated. The following analyzed case report offers such a study.

CASE H. Y.

White American male, age twenty-one.

Entrance Complaint—"A loss of memory—an amnesia the doctors called it—I can't remember anything about my former life."

Family History—Paternal grandmother and paternal aunt "very nervous". Father—neuro-pathic.

Personal History—Normal birth—walked at one year; talked at fourteen months. Enuresis aged three. Sleep walker "when younger" (sleep talker now). Age eleven dishonest. Ran away from home "to be a farmer". Father inconsistent in child's management. Exceptional athlete in high school. Expelled from high school and military academy for insubordination. Economically shifting but successful. Married age twenty—congenial marital situation.

Habits—Moderate drinker and tobacco user last two or three years; irregular hours; finicky appetite.

Previous Personality—Dissembling; changeable, gullible, sensitive, affectionate, self-confident, easily discouraged, unpersevering.

Past Medical—Essentially negative.

Present Illness—Age twenty-two—retrograde amnesia for past life up to "awakening" in hospital.

Physical Examination—Noticeably varying blood-pressure (thought to be due to emotional factors). Otherwise essentially negative.

Laboratory Findings—Essentially negative.

Course of Present Illness—Aged three, enuresis; father a poor influence—child “spoiled”. Aged ten to fifteen, sleep walker. Aged eleven, runaway, dishonest, irresponsible; undependable traits developed along with athletic achievement. Ages seventeen and nineteen, expelled from schools; extremely honest and dishonest in turn; developed undesirable personal habits—talked in sleep. Aged twenty, married; promising marital situation; duplicity and disguise at height; financial stress, legal difficulty, pressing marital responsibilities.

Aged twenty-one, deserted wife and tried to forget his troubles; successful in this only for short spells—worries kept returning with greater intensity; drank much “bootleg whiskey” ($\frac{3}{4}$ pint); several hours later recovered consciousness in strange city hospital; could give no information concerning past life; attracted wide attention; adopted sobriquet “J.S.”; identified by wife; returned home recognizing no one; admitted to psychopathic hospital; as holidays approached and hospital restraint irked memory began to return; with complete recovery developed good insight.

Mental Status—OBJECTIVE—*Attitude, Dress and Personal Appearance*: Patient is a well nourished, well developed, young man, appearing to be four or five years older than stated age of twenty-one. Facial muscles singularly mobile—expression in repose is suggestive of weakness and dissipation. Bodily postures in many interviews are suggestive of unrest. He is quite easily embarrassed and shows slight vasomotor instability in color changes. Although accessible, he presents quite a defensive attitude. This was especially notable when he was complaining of amnesia. His attitude towards the examiner was ostentatiously one of helpfulness and cooperation. Underlying this, a circumspect, guarded, almost wary, mechanism operated. This mechanism was autonomous in the sense that it acted while patient was obviously bent upon elucidating his situation. Another type of defense of a conscious volitional nature presented that apparently resulted from his attempts to fortify the interpretation of his amnesia on an organic, possibly traumatic, basis. He was more impressionable to suggestions in that direction. He is exceptionally neat, clean, orderly, and modish in his personal appearance and pays more than the

ordinary amount of attention to his dress and toilet.

Attention—Easily obtained. Interest well sustained. Especially concerning his loss of memory was he attentive to questions asked him. He noticed and remarked this himself. A certain indefinite inadequacy and evasiveness characterized his responses. This remained to a certain but lesser extent following his return of memory.

Consciousness—Clear at all times since onset of amnesia.

Suggestibility—Patient appears to be of the spineless, easily led, gullible type as long as any project does not carry with it too much of the personal unpleasant. None of the grosser defects discovered.

Conduct—H. Y. is heroic, theatrical, affected, inconsistent, changeable, whimsical, petulant, irresponsible, attention craving, wilful, self-concerned, self-sympathetic, and otherwise markedly egocentric. He lacks a well developed social conscience; at the same time due to his inconsistency he lacks individuality. He often displays the unschooled emotions of a child—is noticeably dishonest with himself and with others, easily discouraged, sensitive, irritable, artful, and self-confident. He is fairly successful in masking these characteristics behind a happy-go-lucky, affable, sociable front. He exaggerates, distorts, and otherwise modifies situations for immediate personal advantage. His letters are dramatic, tragic, sentimental, threatening, or penitent, depending upon his mood. This distinct two-faced, suave, urbane display is pronounced. He enjoys thoroughly a situation in which he has the opportunity to “grand stand”. During the lumbar puncture procedure he half-laughed, half-cried, and otherwise displayed an unsettled, unfixed course of action. When presented before a scientific group as a case of amnesia, he “took the floor” and held forth at great length in a didactic, specious account of his memory loss. In personal contacts he praises examiner, but privately to his wife maligns him. He stands correction indifferently well sometimes, poorly at others. Despite these undesirable personality traits, he is quite capable of ingratiating himself in most instances into the good graces of his fellow patients, nurses and physicians.

Kinetic Status—Emmetrokinetic with numerous mannerisms and affectations of habit form.

SUBJECTIVE—*Orientation*—During residence here, satisfactory. He states that when he awakened in a strange hospital he was rather poorly oriented, temporally, spatially and personally.

Nurses' uniforms told him that it must be a hospital, etc.

Memory—(Part of this material was obtained after patient recovered his memory). He complained of three types of memory abnormality:

1. *Hypermnnesia*. "After I first lost my memory it seems that I'd remember better the things that would be happening around me." (Humoristically). "Maybe that was because I didn't have all the rest to remember. Little details would stand out well at that time. Really it was extraordinary."

2. *Hypomnesia*. "And right along with that I can tell you that as my memory began to return to me, my memory for the recent events became poorer. No, I can't say that they were poorer than they are normally, but there was a change there in that direction."

3. *Retrograde amnesia*. "No, I couldn't remember any of the data of my former life, anything that occurred to me prior to my waking up at that hospital. Oh yes, I'd recall that there were such things as automobiles but I wouldn't be able to tell the names of the various ones. Oh yes, I had the use of my vocabulary for ordinary things, for instance, the different names of foods. Yes, my memory was convenient that way." What he couldn't recall were the events of his early childhood, adolescence and recent years. Even when facts were told him he didn't attach any familiarity to them—had no awareness of their having occurred to him at any time. One thing he did notice though was that it was a relatively simpler matter for him to acquaint and familiarize himself with homes where he formerly used to spend a great deal of his time. Then, too, there was something more familiar about people that he formerly knew in contrast with people he had never met before. No, there was no particular patchiness to his loss of memory, although when it started coming back he noticed that the last things to come clear to him were the events immediately surrounding his leaving his wife. In retrospect he believes that if he hadn't tried to remember so hard, a lot of things would have come back to him sooner; in fact right along. To be sure, some of them did. For instance, he used his pet name for his wife on one occasion, and at another time "unconsciously" reached for the electric light button at the proper place although it was in an out of the way location. But here was something else, doctor, why did he display no aversion—even a predilection almost—for certain foods that were formerly almost unpalatable to him? And why did he like his best chum's brother more than he did

his best chum? Of course the latter could give him more of his time—well, maybe that could account for it, but how about the food? Well, maybe he did emphasize his original dislike for it a little—his wife called his attention to it in the first place. He doesn't know why he experienced slight emotional blocking towards stimulus words of controlled association when these words held significance from the standpoint of his earlier life. He can't say exactly why he didn't care so much for free association at first. Perhaps it was a hangover of his dislike for previous attempts directed towards awakening his memory (rapid questioning, anaesthesia, and faked situations).

Hallucinations—Negative.

Judgment and Reasoning—At the time of his admission to the hospital patient was awarded an intelligence quotient of 105. The psychometrist estimated this rating to be a little low. H. Y.'s judgment of abstract problems is quite good. When his memory for his past life returned he gave an interesting account of his behavior that coincided in the main with the information entered under course of present illness. There was a noticeable tendency for him to falsify facts in his favor, dodge disagreeable self-mortifying material, inexactly represent past uncomplimentary activities, and even almost entirely efface certain other unpleasant memorabilia. There is much of the ambivalent, vacillating, contradictory and pendulous in his statements. "Of course" he adopted the sobriquet of J. S. before his memory returned and even used it after his wife had "sold" him his identity as H. Y., but that was a necessity before and a bit of humor afterwards "was all". His system of values, (ideals, goals, objectives) is quite shaky. His convictions are few, of precarious set and foundation. His excuses, defenses, alibis and reasons are many.

Thought Processes—Before patient's memory recovered he stated that he could not account for his loss of memory; that he felt sure of his identity as H. Y.; that he expected his memory to return to him rather suddenly; that occasionally it would seem to him that he'd be about to recall and then nothing would happen. In discussing these questions he would volunteer little or nothing but never refused to respond to examiner. After he recovered his memory he remarked, "Well I feel as though I am two persons some way or other, and that's the way I felt all along. One part of me would be wanting to express something and another part would be holding it back. I know the whole trouble has been with myself right along—I was worrying too much, and that

had a great deal to do with it. The way I lived was responsible for most of it. I lived like two people all the time and I feel better right now than I have in a long while. I think I understand now why my memory didn't want to come back—why a part of me didn't want it to come back anyway". "Last New Years when I was intoxicated I did things that I couldn't recall having done when I sobered. That's the only time anything like that happened to me." "It's probably true that I have the emotional reactions of a child. I've always had things my own way too much. I don't think though I'll feel the way I do now for long, and that's where the trouble will come in."

Affective Status—Before his memory returned patient stated that he felt all right but that he was a little more irritable at some times than at others. How could he tell whether he was more irritable than he used to be or not? Yes, he was getting tired of the place here fast and would like a change. At times he doesn't know but that he would rather be J. S.—he had a good time as him. After his memory returned he responded "Yes, I do feel depressed but not so much about my troubles—about my memory—as about the events that led up to it. They were certainly bad and I'm ashamed of myself. What you have told me about myself wasn't complimentary, but I believe it will help. I've been a little more restless the last couple of days since my memory came back—more depressed too, learning all about what I used to do."

Insight—"The whole trouble lies with me. I've been in the wrong from the start and, as my wife said, I lost my memory by myself and I could get it back by myself, and when I tried that way it seemed that it came back all right." "Well I can act consistently and I'm going to. I suppose it's true that if you act like two people, that one of them might get stronger and cut the other out entirely—or almost entirely anyway. I think it is all for the best that this happened, and it's been a long while since I've been able to feel as restful and relaxed as I do now."

Diagnosis—Hysterical amnesia in hysterical personality.

Analysis—The dissociation of H. Y. (or the psychogenesis of J. S.) may be attributed to the following factors brought out in the above case report:

1. To begin with, the neuropathic paternal ancestry could at least in part account for any slight inferiority of neural constitution that might be inherent in H. Y.

2. Continued association with the well meaning but evil doing parent would tend to emphasize any existing constitutional identification between father and son. (Since the former lacked any helpful comprehension of his role in the case).

3. Enuresis may be interpreted as a danger signal here. Early somnambulism indicated "* * * an altered disposition of brain functioning, * * * a part of mental machinery * * * set into actions * * * without the rest."¹ Later somniloquism also presaged possible dissociation.

4. The developing character was extremely important in that hysteria has its source in just such a character. H.Y.'s early histrionic ability displayed itself in malingering at home, dissembling at school, etc. In its last manifestation it got beyond his control. There may have been some pretense in his memory loss but this was certainly not of the April first variety. It affected himself—his dominant self—even though it did not "fool" his personal consciousness or main personality. The integration of his mind permitted a memory loss that was in part as real for him as it appeared to be real for others.

5. Accidental circumstances of adolescence and late school years nourished undesirable personality traits and developed behavior patterns unsuited for adulthood. Accustomed to the attention of the gallery, praise and shelter of home and the advantages of tender years, he finds himself stretching adolescent action systems and urges in an attempt to meet an unfavorable environment.

6. Responsibilities of manhood find him wanting. Married, away from home, more work, less play, possible litigation, minimal "limelight" and financial stress became insufferable.

7. Defeat gesture of escape resorted to. He deserts his wife and deliberately (volitionally) tries to forget. Alcohol helps. Inability to ekphoriate engrams results. "It is likely that the initiation of a emorial function always needs a push * * * some favoring circumstances."² When irreconcilable ideas seek expression, an emotional conflict ensues. This emotional conflict is thought to be always present in cases of dissociation. "The phenomenon of the alternating personality * * * seems based upon lapses of memory. Any man, as we say, becomes inconsistent with himself if he forgets his engagements, pleasures, knowledge and habits, and

1. Jastrow, Joseph—The Subconscious; Houghton Mifflin Company; 1906; p. 267.

2. Bentley, M.—The Field of Psychology; Appleton and Company; 1925, p. 259.

it is merely a question of degree at which point we shall say his personality is changed."³ This active forgetting (as manifested in the engaged couple who submitted to the architect the plans for their home—having overlooked entirely plans for a bath, or as well demonstrated in the young wife of six weeks who couldn't recall the name of a well known chain of restaurants common to many of our larger cities) might be conceived to be operating extensively in the case of H. Y. By his own admission his entire past life could easily bear forgetting as far as he is concerned.

8. The hypermnesia complained of here was a concomitant of altered attention. Both the defence of a traumatic etiology for the "disappearance" of H. Y. and the protection of the existing J. S. required a hypervigilant attitude towards the subtle attacks of friends and physicians directed at seeming flaws in his mechanisms. (No increased sensory acuity was discovered). While this careful attention obtained it enhanced the efficiency of the memory.

The hypomnesia described by H. Y. appeared when the need for careful attention to details was no longer felt, and represents only a relative impairment of memory.

The essential symptomatology—retrograde amnesia—revealed at once the ambivalence of especially his later years and the inability of his organic pattern to maintain a working balance under such ambivalence. The circumscription of the amnesia here involves both time and content. It might be stimulating to offer an analogy between the patient's occasional "unconscious" recollections as J. S. and his former "memory slips" as H. Y. The "economy" of re-learning manifested by the feeling of awareness in, and ease of familiarizing himself with, formerly familiar surroundings was an mnemonic expression. Freak antics of the memory (altered likes and dislikes) couldn't weather close scrutiny as was shown. The katathymic nature of memorabilia concerning his leaving his wife could account for their late return. H. Y.'s intimation that trying to recall seemingly defeated its own purpose represents a phase of memory that finds its counterpart in everyday attempts to recall momentarily forgotten words and phrases.

Prognosis—In this case the outlook was greatly optimized by virtue of the fact that Mrs. Y. was discovered to be an exceptional woman who is admirably equipped to cope with the post-hospital care of Mr. Y. The mother-child relationship between the two is most striking. Mrs. Y's

strength of character contrasts sharply with that of her husband. She presents an excellent balance of good intellect and emotional adequacy.

The tendency towards recurrence of the amnesia and the development of other hysterical symptomatology is considerable in this case unless the regimen of prophylaxis outlined for post-hospital care is closely followed.

Treatment—The tenets of mental hygiene were gone into in great detail with Mrs. Y., and—as is usually the case in problem children—the "mother" together with the "child" was carefully treated. With Mr. Y. examiner pointed at the development of insight from the start. The interview method of approach was used to good advantage. The patient's intelligence level encouraged psychoanalysis. Free and controlled associations were helpful. Dreams were unproductive.

It is believed that the most favorable organismic response yielded by patient resulted from his prospects of, and unwillingness to resign himself to, "spending the holidays tied up in a place like this psychopathic hospital."

FEEBLEMINDEDNESS—A COMPARISON OF CLASSIFICATIONS

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Feeble-mindedness, while recognized by the ancients and differentiated by them from dementia is only now being given adequate analytical study. We are just beginning to realize what a large proportion of our crime, pauperism, alcoholism, prostitution, truancy, vagrancy and domestic trouble is due to this defect and why this relationship exists. We are beginning to see the importance of the situation and to think of some remedies.

In view of the present unusual interest in the problem, I believe it is worth while to review the subject in order that we may better correlate the several different classifications and better understand what constitutes feeble-mindedness. On account of the divergent approaches employed in the different classifications, their different purposes and their tendency to overlap, any comparisons will necessarily lack in complete exactness.

PERFORMANCE CLASSIFICATION

For convenience, feeble-mindedness is divided into three grades, moron, imbecile and idiot. The moron is one who is capable of earning a living under favorable circumstances but on ac-

3. James, William—Principles of Psychology; volume one; Macmillan and Company; 1891, p. 379.

count of a mental defect existing from birth or from an early age is incapable of competing on equal terms with his normal fellows or of managing his affairs with ordinary prudence. The imbecile is one who on account of the above defect is incapable of earning a living but can guard himself against ordinary dangers. The idiot is a mental defective of such low grade that he is unable to guard himself against common physical dangers.

The above classification is based on the observed performance of large groups of feeble-minded persons. It is passive and negative in character, concerned largely with what the feeble-minded cannot do rather than with what he can and often does do. It implies society's responsibility toward the defective but does not suggest his dangerous potentialities toward society. Also it makes no reference to the pathology, morals, affect or responsibility which are the important things. It stresses the varying degrees of helplessness without much thought as to why these defectives are helpless or why they cause trouble.

PSYCHOMETRIC CLASSIFICATION

Alfred Binet, a French psychologist, some twenty years ago, added to our knowledge of the problem by means of his mental age tests, which have been a great help in discerning and classifying more accurately and sensibly the many grades of feeble-minded persons. On this basis of intellectual classification those persons having a mental age of from seven to twelve years, (I. Q. 50 to 75), are classed as morons, those with a mental age of two to seven years, (I. Q. 25 to 50), are imbeciles, and those with mental age below two years, (I. Q. 0 to 25), are idiots. Here we have a much broader hint as to why a feeble-minded person performs as he does, however, the intellectual level by no means tells the whole story. It cannot be taken for granted that a moron will react entirely as a child of from seven to twelve years or that a child of from seven to twelve years could make the same kind of a living or conduct his affairs as does a moron because, especially in the higher grades of feeble-mindedness certain characteristics, such as sex and physique tend to approach the adult type while self-control, judgment and reason tend to be perverted as well as retarded and we have, on account of this lack of balance, an individual with great potentialities for anti-social behavior.

LEGAL CLASSIFICATION

This brings us to what might be called a legal classification, one based on the responsibility of

the feeble-minded person to society and of society to the feeble-minded person, and this conception naturally divides defectives into two groups. The lower group includes idiots and imbeciles who are so incapable of self-support and independent action that their irresponsibility and dependence are evident and their legal status is easily settled. Even up to the mental age of nine years the liability to delinquency or reproduction is very slight and society is further safeguarded by the fact that most such persons are segregated.

In the other, or higher group, and as the mental age increases, the problem of responsibility is more complex and more difficult of solution. The borderline between these two groups and between the latter group and the normal is hard to establish. It is the members of this higher (and formerly to a large extent unexpected), group that have been identified and that have had their reactions explained by the more modern conceptions and technique and it is this group that grows larger with the increase of our knowledge of the subject. It is here that we can now place certain individuals whose delinquency, dependence and illogical social reactions have hitherto been difficult to explain.

PSYCHOLOGICAL AND PSYCHOGENIC ASPECTS

Feeble-mindedness is a social condition and it is important, largely, for this reason. Its chief characteristic is a defect of intelligence originating in the preadolescent period of life, on account of which the victim is unable to understand what is perceived by others or express himself as others do. He is incapable of using new material properly, or to profit satisfactorily by experiences and is thus incapable of gaining his end as others do. His deductions from abstract ideas and to a less extent from concrete ideas are illogical and unprofitable. Added to this, and because of the imperfect receiving, storing and elaborating mechanism, the memory is usually faulty and accentuates the deficiency, but the intellectual defect is not all. There is another more subtle, even though possibly less important, defect which has much to do with the ineffectual and anti-social performance of the mental defective and that is the disturbance of emotion, will power and moral sense. No person who has a foolish good humor and who never takes offense, or who is constantly led by others into either good or bad business, or who lacks the instinctive indicator of right or wrong, or who has a persistent and unreasoning irritability and cruelty can expect to function efficiently and some of these characteristics are presented in a

greater or less degree by all feeble-minded persons. Unfortunately, the measurements of these characteristics lack the mathematical exactness of the intelligence tests.

ANATOMICAL ASPECTS

Taking all these tests into consideration, we find that feeble-mindedness may depend on a variety of lesions variously combined. A few of these lesions are definite and circumscribed, many are diffused and some entirely speculative. The special senses through which we perceive and through which we express ourselves may be defective and even though the brain itself be originally able to function properly, performance is imperfect. The special sense defects are usually found in that small percentage of feeble-mindedness due to such things as meningitis, encephalitis or hydrocephalus. The cerebral cortex and more particularly its supragranular layer is the seat of the higher thought processes and controls the capacity for education. It is the last layer to develop, has at birth only half its adult thickness and may be said to be man's crowning glory from an evolutionary standpoint. The infragranular layer is as well developed in

the higher mammals as in man and it is supposed to be concerned especially with the associations necessary for the performance of instinctive activities. Judgment, common sense and reason, as shown in social efficiency, depend on the control of the activities of the infragranular layer by the supragranular layer. Intelligence therefore is closely related to the complexity of development of the supragranular layer and any qualitative or quantitative deficiency whether traumatic or developmental, shows itself in an inefficiently functioning intelligence. It follows, therefore, that no matter how good the afferent and efferent pathways are, if the supragranular layer is injured or of primitive type, the ability to store, associate and elaborate experiences is reduced and the intellectual efficiency is lowered. The fact that feeble-minded persons usually appear and act as reversions to a more primitive type is in accord with the above observations. The brains of feeble-minded persons by their gross appearance or by their microscopic appearance usually suggest such a state of affairs and we may infer that there are even bio-chemical differences that we are unable to identify. It is in that large group of hereditary or essential feeble-minded

SCHEMATIC REPRESENTATION OF VARIOUS CLASSIFICATIONS OF FEEBLEMINDEDNESS

Performance or Capacity	Psychometric Rating	Legal	Pathological		Goddard		Anatomical Localization
			Primary	Secondary	Hereditary	Accidental	
Feeble-minded or Moron	Mental age 7 to 12 years. Intelligence quotient 50 to 75.	Partially self supporting. Weak and per- verted will and judgment. Fair physique Fertile.	Simple Type. (Largely hereditary, few stig.) ↓	↑	A. Hereditary. B. Probably hereditary. C. Neuropathic. ↓	↑	↑ Functional.
		Dependent. Institutional. Defective appearance. Sterile.	↑ Mongol.? Cretin.? Microcephalic. Hydrocephalic. (cong.) (Largely genetous, many stig.)	Epileptic.? Traumatic. Meningitic. Encephalitic. Syphilitic. Eclamptic. Diphlegic.? Hydrocephalic. (acquired) Amaurotic.? Other types. ↓	↓	Epileptic.? Traumatic. Meningitic. Encephalitic. Syphilitic. Mongol.? Cretin.? Eclamptic. Diphlegic.? Hydrocephalic. (acquired). Other types. ↓	Afferent. Efferent. Central. ↓
Idiot	Mental age 0 to 2 years. Intelligence quotient 0 to 25.						

Note I. Horizontal level of individual type indicates only in a general way its relation to mental age.
Note II. Question Marks (?) indicate types in which proper grouping is still in question.
Note III. Arrows indicate direction of trend in relation to mental age.

that diffuse rather than gross cortical changes occur.

It would even seem possible that with anatomically perfect afferent, central and efferent structures, inefficient functioning might result from metabolic or bio-chemical disturbances, causing as it were, so-called functional feeble-mindedness, corresponding to other well known functional disturbances, and probably due largely to endocrin changes. Endocrin pathology, both gross and microscopic is a common finding in postmortems on feeble-minded persons. We know that thyroid deficiency is at least the principal cause of cretinism. The Mongol physique suggests some similar defect. Adrenal defect has been blamed for certain monstrosities. Other physical and developmental characteristics of feeble-mindedness suggest pituitary and gonad disturbances. Also certain emotional reactions and altered mental tone suggest metabolic and probably endocrin disturbance.

PATHOLOGICAL CLASSIFICATION

Returning now to the matter of classification, we find that the usual grouping is in terms of physical pathology and that there are two groups. The first includes the primary or genetous cases dating from foetal life, and comprises 90 per cent of feeble-minded persons. The second group includes the so-called accidental cases. Those resulting from epilepsy, meningitis, encephalitis, syphilis, trauma, etc.

In the first or primary idiocy group there are several types all of which you will note have their origin in heredity or in causes operating on the foetus.

The first type is simple congenital idiocy and it corresponds roughly with Goddard's hereditary and neuropathic groups. In this type there are no specific or essential physical characteristics, although stigmata are usually found to a greater or lesser degree. The patients are usually undersized, the head is small and frequently asymmetrical and there may be other stigmata. The facial expression is usually dull and stupid, the features coarse and heavy, the mouth half open and the tongue apparently too large. Drooling is common. The forehead is likely to be low, the lower jaw either receding or unduly prominent. The movements show a lack of coordination and are often awkward and clumsy. Usually the conduct, expression, appearance and physique correspond with the degree of mental defect, however, there are some cases which are well developed physically and show few stigmata. These are usually, but not always, of a high grade and

their mental defect might not be noticed by the casual observer.

The Mongolian type was first described about sixty years ago. Its frequency has been variously estimated at from one to ten per cent of all feeble-mindedness. The etiology is still shrouded in mystery. Neither heredity, syphilis, alcohol, endocrin disturbances nor advanced age of parents has so far satisfactorily explained the condition and we are left with the very unsatisfactory statement that some factor in the mother's condition during pregnancy may ultimately explain it.

The cases are all very similar in appearance. The skull is rounded with a shortened antero-posterior diameter, (brachycephalic), the occipital protuberance is flattened so that the planes of face and occiput tend to be parallel. Fontanells and sutures close late. The hair is straight and thin, the forehead low and covered with a downy growth. The face is round, the palpebral fissures slope upwards and outwards, epicanthus folds are frequently found, the bridge of the nose is broad and flat. The cheeks are full and of good color, the mouth small, the lips everted and fissured and the tongue large, protruding and fissured. The patients are undersized but well developed with broad hands, short fingers and toes and wide cleft separating the big toe from the others. Congenital cardiac and eye defects are common.

At postmortem examination the convolutions of the brain are more primitive and simple than those of a normal brain. There are no constant microscopic changes.

Curiously enough the mentality tends to be arrested in most cases at about four years. As a rule, the children are bright, tractable, imitative and fond of music. Mongols are much more commonly found among the well-to-do and where there is no defective heredity than among the poor and ignorant or where defective heredity exists. The appearance of the individual, the characteristic mental age and the lack of feeble-mindedness or neuropathic heredity, surely point to congenital rather than hereditary origin. The physical attributes definitely suggest an endocrin breakdown of some sort.

The etiology of cretinism is well known. Although the thyroid absence or deficiency is present from birth, symptoms do not appear for six or eight months. The physical changes are characteristic. The head has a long antero-posterior measurement, (dolichocephalic), and is narrow in front and broad behind. The features are heavy and ugly, the hair coarse, the forehead low,

eyes far apart, palpebral fissures horizontal and narrow. The nose is broad and flat, the lips thick and everted, the mouth open, the tongue large and protruding but not fissured as in the Mongol. The skin is coarse, thick and dry. The body, limbs and digits are short and thick and the abdomen protuberant. Metabolism is feeble, temperature low, pulse slow and perspiration lacking. Myxoedematous infiltration and fat pads are distributed over the body.

In untreated cases the mental age varies from zero to five or six years and the children are dull, slow and stupid. Here again, as in Mongolism, the type is primary as distinguished from accidental or secondary and is genetical rather than hereditary.

The microcephalic idiot is characterized by the unusual smallness and peculiar shape of his head. The forehead is narrow, the occiput flat, the vertex high and pointed, (oxycephalic). The face and body may be large. A marked hypoplasia of the brain is said to lead to early closure of sutures with resulting small skull. The brain is very primitive, convulsions and spasticity suggesting gross brain defect are commonly noted.

These children are amiable and bright in disposition but liable to passionate outbursts. The mental age is usually low and the general health good.

Feeble-minded heredity has been noted in some cases but the etiology is generally considered as undetermined. Probably these cases should be considered as belonging in the class of simple congenital cases, the microcephalous being an example of extreme stigmatization.

The hydrocephalic idiot is mentally defective as a result of conditions, usually pressure, which either prevent brain development or destroy already developed brain tissue. The hydrocephalic, as a rule, shows great mental deficiency. His mental age is rarely more than five or six years and frequently it approaches zero, although in a few exceptional cases where the process has come to a standstill at an early age the person has attained adult life with even superior mentality.

The typical case has good features but a blank expression, and is topped off with a bulbous cranium and bulging brow which give a wise and thoughtful effect. The skull is macrocephalic, (large) and often chemocephalic or platycephalic, (flat).

Most of these patients are thin, anemic and puny and they usually die young.

To refer again to etiology, some cases have a developmental defect of the brain which results

in both hydrocephalus and feeble-mindedness. Others acquire feeble-mindedness from the effects of increased cerebrospinal fluid pressure, which pressure in turn may be caused by a congenital defect or by a defect resulting from inflammatory disease obstructing normal flow of fluid.

Following out this classification of feeble-mindedness, we come to secondary amentia. The various types are differentiated largely on etiological grounds such as eclampsia, epilepsy, trauma, paralytic or diphlegic, meningitic or post febrile, syphilitic and amaurotic family idiocy. These cases are purely accidental, except the amaurotic type, usually with low grade intellect, no stigmata but frequent paralytic defects. On account of their great mental defect and feeble physique, they are not often social problems but require hospital or home care. The degree of feeble-mindedness depends on the amount of injury and scarring of an otherwise normal brain. Defects of sight, hearing and speech are common. These cases require careful study because among them are found some whose brains are all right but whose special sense defect give them the appearance and actions of feeble-mindedness. There is a growing tendency with cases of secondary amentia to emphasize the causative disease rather than the mental state, thus congenital syphilis with mental defect, epilepsy with mental deterioration.

Amaurotic family idiocy is a little understood familial form of mental defect occurring almost exclusively and for unknown reasons among Jews and should hardly be included in such a consideration. These persons are born healthy but within a few months rapid physical, mental and neurological retrogression begins and the patients die in marasmic state before two years of age.

"HEREDITY AND ACCIDENT" CLASSIFICATION

Let us now classify and compare the mental defectiveness from a slightly different point of view, with less attention to the physical characteristics and pathology and with more attention to the more basic facts. In this approach I will use Goddard's study of 300 institutional cases as a basis.

In this series 54.7 per cent are definitely of the hereditary type and it is interesting to note that in over half of these the cause originally ascribed by parents or physician was other than heredity, such things as neglect and abuse, falls, intemperate parents, shocks and frights to mothers. None of these should be held as true causes

after the family history of frequent feeble-mindedness is brought out.

For the sake of being strictly conservative, 11.3 per cent were classed as probably hereditary and should be rightly added to the 54.7 per cent definitely hereditary.

In 12.3 per cent, neuropathic ancestry appears to be the cause. This group varying from the above as to etiology only in that the heredity instead of being feeble-mindedness is paralysis, apoplexy, epilepsy, insanity, congenital blindness and deafness and other neuropathic conditions.

It is an interesting but unexplained fact that such arterial degeneration as results in apoplexy is a common heredity antecedent of feeble-mindedness.

Adding together these three groups we find that, in Goddard's material, at least, 78.3 per cent have no other reasonable cause but heredity. This to me is the striking and pertinent fact of the whole subject and points definitely to the major remedy for the trouble.

In this hereditary group the mental age of cases varies from one extreme to the other but cases with a mental age of from seven to twelve years predominate. This is as would be expected when we remember that it is the high grade defectives who are producing these cases and they naturally tend to reproduce offspring with like capabilities. On the other hand, the low grade idiot is more common as an entirely unexpected arrival in an intellectual and well to do family with no bad heredity.

The accidental type comprises 19 per cent of the group studied and include the so-called preventable conditions arising before, during and after birth. Three and six-tenths per cent are the Mongols, 5.3 per cent are due to meningitis. In this group also appear cases due to such adequate causes as acquired hydrocephalus, cretinism (1 case), paralytic cases where there is evidence of spontaneous hemorrhage or hemorrhage or trauma due to difficult or instrumental delivery. In spite of the popular idea that birth injury accounts for many cases of feeble-mindedness, Goddard reports only one out of 337 cases where this factor could rightly be considered as the cause.

Other accidental causes are given but they are entirely inadequate and apparently are given only for want of a better cause, which, no doubt, in many cases, would prove to be hereditary if the facts were available. Two and seven-tenths per

cent of the cases, in spite of apparently complete data had no discoverable cause.

I wish to stress the fact as suggested by the above and apparently proven by other elaborate arguments that the more intensive the study of a case the more likely it is to be pushed up into the hereditary group. Probably if all the facts were known about all the cases, not more than 10 or 15 per cent would remain outside that group.

In fact, it is conceded by many that feeble-mindedness, (essential F. M.), is a unit characteristic in the Mendelian sense. This theory is substantiated by the fact that inheritance in feeble-minded families very closely parallels the expected results according to Mendelian laws.

It has been the purpose of this paper to list and characterize the different kinds of mental defectives, so that when a Mongol, a moron, or a six year imbecile is spoken of we can place him in the various classifications and visualize him with some degree of accuracy as to etiology, pathology, appearance, mental age and responsibility.

It is impossible to close without pointing the moral, which is based on a few outstanding points. We have observed, first: Most feeble-mindedness is hereditary and these hereditary defectives are usually of high enough mentality and of mature enough physique to be a social menace in themselves and to pass on their defect to numerous descendants in succeeding generations. Second: The small proportion of defectives who are not of the hereditary type are usually of such low mentality and are so immature or defective physically that they have no offspring and even if they did the children would not carry the defect. They are therefore a problem only so far as their immediate care is concerned. Third: Feeble-mindedness either in the individual or in his germplasm cannot be cured in the ordinary sense of the word. It is therefore quite evident that the serious problem is only with the hereditary group and the solution of the problem is obviously along the lines of segregation and sterilization.

Such a program would, I believe, reduce by one-half our problems of crime, pauperism, prostitution, alcoholism and institutional care of defectives.

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PULMONARY TUBERCULOSIS COMPLICATED BY SYPHILIS; WITH A REPORT OF THE CASE*

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In presenting this case, I feel that I am not reporting a condition which is as unusual as is generally supposed. The case will illustrate some interesting features. With two diseases so prevalent as tuberculosis and syphilis, it is not surprising that both may be found in one individual. In certain types of tuberculosis, the addition of syphilis, no doubt, influences the course of the former; and it will also be shown that in the treatment of the syphilis, certain precautions are advisable.

This young man was twenty-four years of age, Scandinavian, and a carpenter by occupation. His chief complaint was an intense hoarseness and sore throat, so marked that it was almost impossible for him to talk even in a whisper, making it extremely difficult and painful to swallow. There was pain in his throat, neck and chest; and he complained of weakness, fatigue, chills and fever, cough with abundant expectoration, intense sweating, and cold extremities.

History of Complaint: This was most difficult to obtain, and then only piece meal over a period of four weeks. He was first seen on February 2, 1927, at the Methodist Hospital. Sometime early in the summer of 1926, probably in May or June, a sore appeared on the glans penis. He paid no particular attention to this, applying some local treatment himself, and eventually during the summer the sore disappeared. In September there was noticed a slight huskiness of his voice, which bothered him particularly toward evening. Under some local home treatment this improved for a short period, but in the early part of November it became very much worse so that by the latter part of December, it was difficult for him to talk or swallow. From his father it was learned that for about two years, particularly in the morning, he had a slight dry cough. This, however, gave him no particular trouble until the latter part of September, 1926, when the cough became rather pronounced, and he began to raise considerable mucopurulent material. His father also said that several times during the two-year period, he had considered taking him to a physician for his cough, but the boy objected, stating that it was due to his cigarette smoking. He had never

raised any blood, nor was the sputum ever streaked. During this two year period, his sexual habits were bad. He continued to work as a carpenter until the latter part of September or first part of October, when he had to quit because he became so weak and tired so easily. About the first of November, he consulted the family physician, who obtained a four plus Wassermann. The patient was then referred to a specialist for antisyphilitic treatment. During November, December and January he received nine intravenous doses of salvarsan .9 mgm. each, and in January received several intramuscular injections of mercury. In January, 1927, his throat condition became so bad that he was referred to Dr. Reeder on January 29, who found the pharynx somewhat congested, the larynx and trachea markedly congested. Through the bronchoscope a sublaryngeal abscess was opened. For the next two or three days he felt somewhat improved, but on February 1, his condition became alarming because of a rise in temperature, chills and cold sweats.

On February 2, I was called to go over him for the possibility of a pneumonia, and found a young man extremely ill. The temperature was 101, pulse 120, respirations 30. His face was flushed, and he was breathing with considerable effort. It was impossible to understand him because of his intense laryngitis and voice huskiness. He was emaciated, 5 feet 10 inches in height, not weighing over 120 lbs. His usual weight had been 156 to 160 lbs. The skin was moist and clammy. Eyes were negative. Tongue was slightly coated. There was a general slight enlargement of the lymphatic glands. The chest was long, flat, emaciated and poorly muscled. Motility was much retarded, but most of all, over the upper half of the left chest. There was dullness, almost flatness, of the upper left chest from the mammary line extending backward and downward to the fourth rib anteriorly and the fifth dorsal spine posteriorly. The remaining portion of the left lung was somewhat hyperresonant. The breath sounds were very harsh and prolonged, the inspiration of a cogwheel type. Over the rest of the lung, the breath sounds were harsh and throughout there were numerous rales both moist and crepitant. The right lung was hyperresonant anteriorly, and dull posteriorly from the second to the sixth dorsal spine and extending forward to the axilla. The breath sounds were harsh and prolonged with numerous crackling rales throughout. Heart: Boundaries were within the normal limits. Sounds and rhythm were normal, except the pulmonic sounds, which

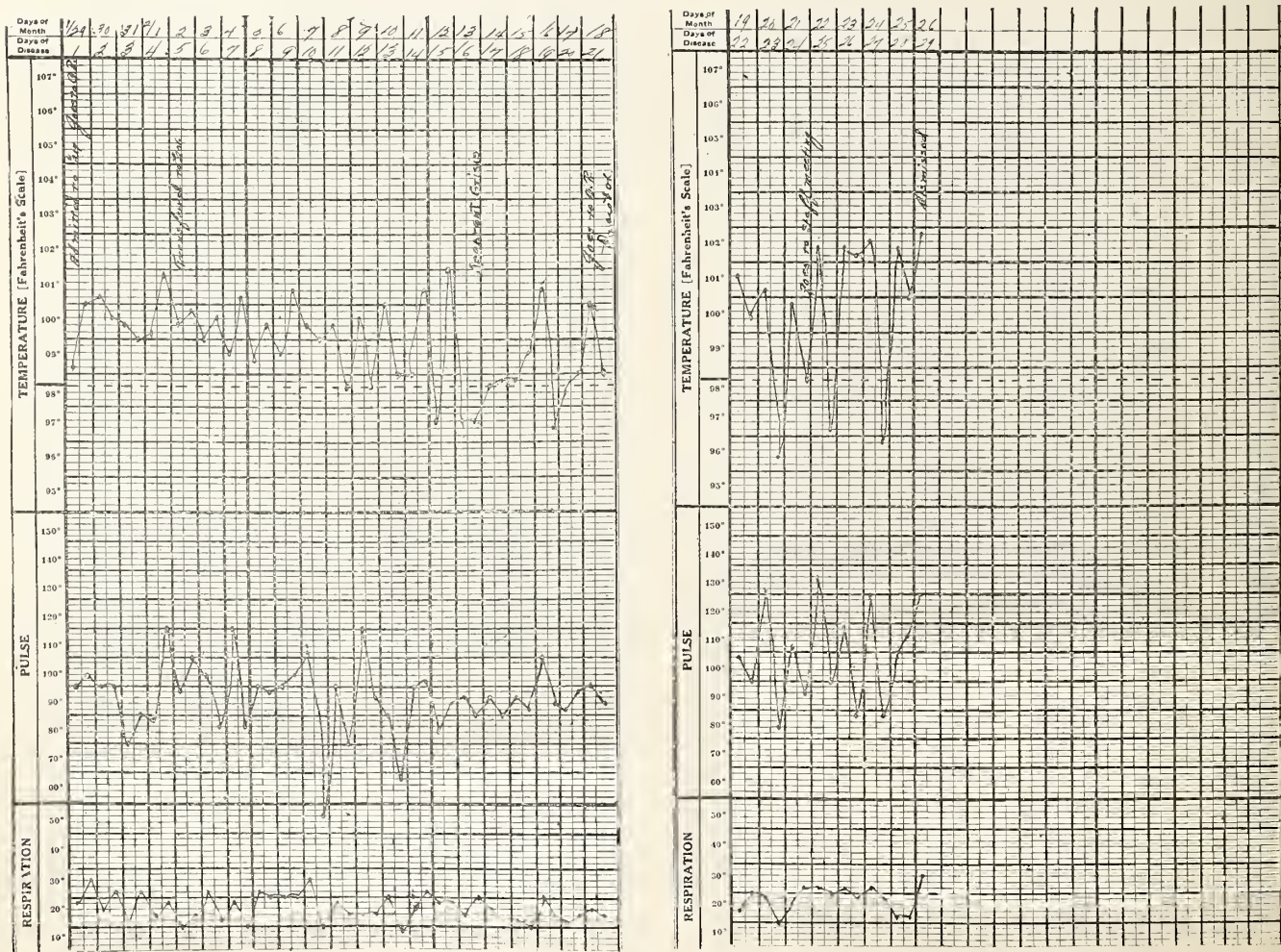
*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

were greatly accentuated. There was no thrill or murmur. The abdomen was soft, flat, no tenderness, tumors or organs were palpated. At this time it was noted that in an examination of the sputum, no tubercle bacilli were found and that he had a four plus Wassermann. On the 29th of January, the hemoglobin was 70 per cent and there were 15,500 leukocytes. On February the 2nd, the day of this examination, there were 20,800 leukocytes and the urine showed a slight trace of albumin. He had had a rise of temperature from the previous day and was having chills. Not having been able to obtain a satisfactory history, with the previous antisiphilitic treatment emphasized, and four days previously having a laryngeal abscess opened which was followed by the present physical findings, it was felt that he had an acute bronchopneumonia with the possibility of an abscess in the upper left lobe. He continued to run a temperature, varying in the morning from 99 to 100, and 101 to 102 in the afternoon. The pulse usually varied from 90 to 120. The respirations varied from 20 to 36. On the 12th of February, his temperature suddenly dropped from 102 to 97.6 and remained so

on the 13th, and on the 14th was 98.6. On the 15th, in the morning the temperature was 98.6, and in the afternoon 99. During this period, from the 2nd to the 18th of February, the patient went through what appeared to be a severe attack of bronchopneumonia and followed by an apparent crisis. The lungs, however, did not clear up entirely; although there was some improvement during this time in the right lung.

On the 18th, it was decided to x-ray his chest to determine the location and extent of the abscess in the upper left lung. Dr. Reeder made a bronchoscopic examination and found the left bronchus entirely occluded. Lipiodol was instilled and the x-ray picture taken. Now imagine, if you please, our chagrin when the picture showed the right lung to contain many small cavity-like and nodular areas, with an intense peribronchial infiltration. The mediastinal glands were much enlarged. The left lung showed a large cavity formation in the upper lobe and intense peribronchial infiltration, with intense infiltration throughout the remaining portion of the lung.

On the 9th of February the leukocytes were



11,300; on the 10th, 9,500; on the 15th, 16,500; and a differential count on the 21st showed 86 polymorphonuclears, 11 small and large lymphocytes and 3 transitionals. On the 24th the white count was 9,200. On February 21st, a specimen of sputum examined showed literally millions of tubercle bacilli, while on February 2nd no tubercle bacilli were found.

On the 19th his condition again became alarming. Prostration was extreme, and he had a great deal of difficulty in swallowing even small amounts of liquid. The chest findings were about the same, except numerous coarse and moist rales could be heard throughout both lungs.

On the 29th of February, his mother decided she wanted him at home, so he was discharged from the hospital. His temperature at home ranged from 100 to 103, and his pulse from 100 to 136, respirations from 30 to 40. On the 1st of March, about 4:00 p. m., without warning, he had a very severe hemorrhage from his bowels. There was about two quarts of deeply blood stained fluid. The abdomen was slightly distended, and there was rather marked tenderness in the lower half. No organs or glands were palpated. These hemorrhages continued intermittently every day. He was raising a great deal of mucopurulent material, and his tongue and pharynx were coated with an immense amount of caseous material. He died at noon on March 4, and at 4:00 p. m., an autopsy was made by Dr. Starry and Dr. Abel, pathologists at St. Joseph's and Methodist Hospitals.

The gross findings were as follows: Body of a young man in extreme emaciation, subcutaneous fat scanty, and the musculature thin. The tongue, pharynx, larynx and bronchi abundantly covered with caseous material. Extensive tuberculosis of the larynx with almost complete destruction of the vocal cords. The left bronchus was practically occluded with thick caseous material. A small tuberculous process was found in the cervical portion of the esophagus. There was no free fluid in the thoracic cavity, but the pleura was congested. The right lung was adherent at the apex and the upper lobe contained many cavities the size of a pea to a walnut and filled with caseous material. The lower lobe was congested and contained many millet seed size tubercles. The left lung upper lobe was adherent at the apex and both lobes were firmly adherent posteriorly. The upper lobe contained two large cavities about 5 cm. in diameter, filled with thick caseous material, and throughout there was an extensive tuberculous process. The lower lobe was extensively infiltrated with many millet

seed to pea size tubercles. The mediastinal glands were enlarged and some were caseous. The pericardium contained about 50 c.c. of clear fluid, and in the heart nothing abnormal was found. The liver was slightly enlarged and did not show any gross change. The pancreas and spleen, no gross changes were found. In the stomach only postmortem changes and it contained some semi-fluid grayish material. The large intestine was distended and one small dark red ulcer was found. The small intestine, especially the lower portion, showed many small tuberculous ulcers, several of which had perforated and the peritoneal surface over these ulcers was covered with a fibrinous exudate. Many of the mesenteric glands were enlarged and a few were caseous. The adrenals, kidneys, ureters, bladder and prostate nothing abnormal was found.

Microscopically: Advanced ulcerative tuberculosis of the tongue, tonsils, larynx, trachea and bronchi. The mucosa of the pharynx, larynx, trachea and the vocal cords were practically destroyed by the ulcerative process. Marked tuberculosis of both lungs, both early and caseous process. No fibrosis found. Marked tuberculosis of the bronchial and mediastinal lymph glands. Marked tuberculous pleuritis. Miliary tuberculosis of the liver and spleen, with lymphoid exhaustion of the spleen. Perforating tuberculous ulcers of the small intestine, with fibrinoplastic peritonitis localized about the ulcers. Kidneys: Marked cloudy swelling and necrosis of the tubular epithelium. Aorta: Fatty degeneration of the intima and a slight amount of round cell infiltration of the vaso vasorum.

In analyzing this case, one finds some very interesting features. He, no doubt, had an incipient pulmonary tuberculosis as evidenced by the history of a cough for two years. Then in September, 1926, it became activated, which was shown by hoarseness, fatigue and loss of strength, aggravated cough, with expectoration, which symptoms became severe enough so that he was compelled to quit work. The cavities in the upper left lobe were larger than elsewhere, and there were extensive adhesions at the apex and posteriorly. No doubt, this was the first area to break down. Then the long standing laryngitis which did not break down until the opening of the sublaryngeal abscess. This was evidently followed in a few days by an acute tuberculous pneumonia, with a rapid dissemination of the disease throughout the lungs. It is interesting to note that a pneumonia of this type has all the essential characteristics of an ordinary pneumonia; as chill, fever, consolidation, leukocyto-

sis and signs of sepsis. Then at the time of expected defervescence, however, the temperature does not ordinarily fall and remain so. Later as softening takes place, cavities form and numerous moist rales appear. The laryngitis became very much worse, so during the last few days, he could not eat or talk. At autopsy one can hardly believe that the pharynx, larynx, trachea and bronchi could show such extensive ulceration and tissue destruction.

On the 21st of February, it was decided to bronchoscope him and use lipiodol for the abscess. The x-ray then gave us evidence for the correct diagnosis. Following this, he had a very stormy time, until his death, and tubercle bacilli appeared in abundance in the sputum. I firmly believe the lipiodol made him worse, and feel that it should not have been used.

The only evidence of syphilis was a history of a sore, a scar on the glans penis, the constant four plus Wassermann, general enlargement (slight) of the lymphatic glands, and the slight round cell infiltration in the aorta. Another interesting feature showing the acuteness of the tuberculosis was that in the gross pathology of the liver and spleen, no evidence of tuberculosis was found. Yet, microscopically numerous tubercles were found in both organs.

It is not surprising where two diseases so universally prevalent as tuberculosis and syphilis, that one should occasionally find them in the same individual. H. R. Landis quoting from Bowman: "From an analysis of 500 Wassermann tests, obtained the following results: (1) In subjects of pulmonary disease there were twenty-one positive reactions in 233 serums tested, approximately 9.42 per cent positive reactions. (2) In subjects of non-pulmonary disease there were fourteen positive reactions in 277 serums tested, approximately 5.05 per cent positive reactions. Bowman feels that the Wassermann reactions have not been found more frequent among the tuberculous than among the general population, that syphilis of the lung as an isolated disease is extremely rare and it may be that in a number of cases recognized positive, there is a combined syphilis and tuberculosis of the lung." In this case no evidence of syphilis in the lung could be demonstrated postmortem.

J. W. Samson states "that opinion on the influence of syphilis on the origin and course of pulmonary tuberculosis is divided. While one group of authors believes syphilis to have a favorable effect, others believe that it gives a bad prognosis and favors the development of pulmonary tuberculosis. The material studied con-

tains a strongly syphilitic group of 1300 prostitutes of Berlin. Among the Wassermann-positive cases there were 12.5 per cent of cases of active tuberculosis. While among the Wassermann-negative cases, there were 10.7 per cent of cases of active tuberculosis, only a slightly greater proportion among the syphilitics."

In this man's case apparently the syphilis influenced the course of the tuberculous disease in at least two ways. First of all, his resistance was lowered by not having any antisyphilitic treatment for at least five or six months after the appearance of the chancre. This was evidenced by the symptoms of fatigue, loss of strength and hoarseness, which appeared in September or October. Antisyphilitic treatment was not begun until sometime in November. Secondly, he was given maximum doses of salvarsan, and from then on, the disease apparently made rapid progress.

Elsner says "Syphilis, particularly neglected cases with lowered resistance, offers a favorable medium for the advance of tuberculous disease. Tuberculosis is never favorably influenced by the addition of syphilis. It is not unusual to find acute tuberculosis shortly after syphilitic infection, and to see the rapid advance of the chronic form of the disease as well as the kindling of a latent deposit to activity. If, on the other hand, tertiary syphilis is present and tuberculosis is acquired, the course of the latter may be uninfluenced by the previous specific infection. The French have claimed a favorable influence on the tuberculous disease by the exhaustion of the syphilitic poison and the ultimate tendency of the tuberculous process to fibrosis and chronicity. That there are many cases of tuberculous disease of the lung and syphilis combined, in which we find not only positive bacteriologic evidence of the former, but establish the certainty of the latter by serodiagnosis, in which the mixed treatment (salvarsan and anti-specific drugs) gives satisfactory results which cannot be denied. The clinician is frequently surprised to find his prognosis favorably influenced in such cases by systematic and specific treatment. In the presence of tuberculous invasion of the lung, specific treatment and the Wassermann test are often justified, and should be used for their diagnostic and prognostic value."

It is evidenced in these cases, one should proceed cautiously with anti-syphilitic treatment. Unquestionably cases of old tuberculosis with a recent specific infection are improved by appropriate treatment. It is also true, that there are cases of recent tuberculous infection in which

disastrous results follow an added syphilitic infection. This case is evidently one of the latter, and in these cases salvarsan and iodine add only to the disaster.

Bowman quoted by Landis thinks "Arsphenamine and the analogues may produce untoward results. He thinks, if arsenic is used, the dose should be small and the intervals increased. If focal or general reactions occur, the patient should be carefully watched. He thinks, the arsenical compounds may be useful in cases in which the diagnosis is doubtful, but extreme care must be used and the possibility of a tuberculous flareup must always be borne in mind."

J. W. Samson found in his cases that "The cirrhotic nodose or nodose cirrhotic forms of tuberculosis predominate as a whole, the combination of the two diseases has an unfavorable effect upon the tuberculosis prognosis; which may be counteracted by antisymphilitic treatment. In tuberculosis originating soon after a syphilitic infection, the prognosis is unfavorable. Later stages of tuberculosis are not especially influenced by syphilis developing during their course. Syphilis developing shortly after the appearance of an active tuberculosis seems to have an unfavorable influence on the tuberculosis."

Conclusion: This case was undoubtedly one of pulmonary tuberculosis activated by syphilis, and illustrates the importance of a proper history for the diagnosis. The giving of large doses of salvarsan, no doubt, helped to spread the tuberculous infection, and the opening of the sublingual abscess was followed by an acute tuberculous pneumonia. Following the injection of lipiodol all his symptoms became greatly aggravated.

Patients with fibroid phthisis are probably not influenced by an added syphilitic infection, and are frequently improved by appropriate antisymphilitic treatment. However, a recent pulmonary tuberculosis may be activated by syphilis, and the acute and exudative types are, no doubt, made worse by antisymphilitic treatment.

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Discussion

Dr. Herbert V. Scarborough, Oakdale—First I would like to congratulate the essayist on the careful way in which he analyzed what happened in this interesting and unusually misleading case. A number of factors were involved and only a few of them can be discussed in a short time. In regard to the frequency of these cases, in the last seven years we have done Wassermanns in about 2800 cases, and have found that approximately two per cent of the cases have a positive Wassermann. The cases we see at Oakdale are a fair cross-section of what might be expected in Iowa. No doubt certain types of people run the percentage up, but we do find many cases of 4-plus Wassermann, a large proportion of them unsuspected. In view of the reports and especially of our own results in regard to the effect of mercury and iodine in these cases, we have reached the point where, unless we elicit the history of recent syphilis, or find active syphilis at the time of examination, we do not feel justified in giving these patients anti-symphilitic treatment, if the tuberculosis is active. In other words, we do not treat Wassermann cases. Of fifty-four Wassermann plus cases, forty had tubercle bacilli present on diagnosis, and of this number only three were, in our opinion, actively syphilitic. Of the fourteen cases in which we did not find the tubercle bacillus present, we concluded that two of the patients, or possibly three were actively tuberculous, the balance being inactive so far as tuberculosis was concerned. A peculiar fact was that some six cases with tubercle bacilli in the sputum, seemed like the class without this finding—they were essentially negative as regards the clinical picture of tuberculosis. If we then have a definite number of cases received in which tuberculosis is not active and, comparatively, so many with a 4-plus Wassermann, a good many times unsuspected, this must be taken into consideration in any case of tuberculosis in planning treatment. Of course, we know that whenever we are going to have a surgical operation of any moment, one of the most important things necessary is to first eliminate the presence of tuberculosis. For instance, I

have seen many cases of dormant tuberculosis become active after tonsillectomy. The same thing must be said regarding the presence of tuberculosis in syphilitic cases, and it is becoming more and more the thing to think about the presence of tuberculosis prior to instituting any course of anti-syphilitic treatment. We must know very certainly that we have eliminated the presence of tuberculosis. I cannot, from experience, say a great deal about the bad effects of anti-syphilitic drugs used in active tuberculosis except in occasional cases, but in the chronic cases in which they were used, we could not often see that the tuberculosis was especially improved by anti-syphilitic treatment. Years ago mercury was recommended as good in tuberculosis of the lung, with published good results, but we tried it, and the results were bad. We also have found that the effects of arsenic are often not good. So we watch the case until the pulmonary tuberculosis is quite improved, if possible. Of the tuberculosis patients treated for syphilis, we found only one or two cases which we thought were extremely active as regards syphilis. In one case particularly, the history was very misleading. We were unable to get a history from the man himself as he was unable to talk, and such a handicap necessitates care. If this case of Dr. Koch's had not refused health examinations, the results might have been different. Most patients know the probabilities in connection with chance, at which time this case should have received treatment before the pulmonary condition became active, stirred up doubtless by the luetic infection. Later when the anti-luetic treatment was given, it had a serious effect. The picture after the case developed looked like an aspiration pneumonia, and there must have been a considerable effect from the discharge of this abscess. The discharging abscess from the sublingual region looked like an abscess of the lung. The taking of an x-ray made the condition clear. The history is the most important point in differential diagnosis. As time passes, we become rather radical in regard to history taking. I believe it is the biggest thing that can be done to make the diagnosis of tuberculosis more certain in the hands of the general practitioner. It should be stressed more than it is. It sometimes requires a lot of faith to make a definite diagnosis on atypical cases where nevertheless some significant symptoms are present. I cannot go into the matter of treatment, but might say a word about the use of lipiodol. We have used it to some extent in chronic or quiescent cases, and believe that in connection with these other measures it is safe to use. It seems to me, however, that it should never be used in the acute tuberculous exudative cases. In more convalescent quiescent cases, when it comes to a need for differential diagnosis we have used it without any particular damage. We have seen two cases in which there seemed to be increased activity of a tuberculous process in cases with nephritis. We have seen two or three cases with skin rash occurred but, in which no damage was sustained.

Dr. Murdoch Bannister, Ottumwa—As Dr. Koch was reading his paper it seemed to me that he exactly described a case I have had. The man was the same age as his patient, he had tuberculosis and acquired syphilis. The only thing I could add is that he also acquired gonorrhea, but this cleared up. What I wish particularly to say is that instead of treating the syphilis I took the other horn of the dilemma and treated the tuberculosis, but he died about the same time Dr. Koch's patient died. In his case anti-syphilitic treatment did not help the tuberculosis, so the results are bad either way.

Dr. Walter L. Bierring, Des Moines—The very careful analysis which Dr. Koch has made in the case of a patient evidently suffering from two definite infections, brings up several questions. It appears from the autopsy that the only evidence of pathological change was the tuberculosis. It is stated that there was evidence of aortitis, but no other signs of visceral syphilis. While a latent syphilitic infection is to be considered, all the changes that were described in the autopsy report were those of a general ulcerative tuberculosis. The military tuberculosis changes in the liver and the lower lobes of the lung are rather characteristic of advanced ulcerative tuberculosis. The question raised by the essayist is—did the use of arsenical preparations cause the old tuberculosis to flare up in much the same way as Dr. Scarborough and others say that any operation or the use of an anesthetic will sometimes cause an old tuberculosis to become active? One wonders whether the use of mercury here instead of an arsenical preparation might have brought about a different result—whether the perivascular infiltration which usually results from the administration of arsenic and one of the contra indications of its use in vascular syphilis may have been the exciting cause. The other question that arises is, does tuberculosis or other associated pathological conditions have some influence upon the serologic reaction? Does the Wassermann test occur in other pathologic states, and does a positive reaction in every instance indicate anti-syphilitic treatment? Since illustrative cases have been introduced into the discussion, I will refer to a recent observation: The patient, a married woman forty-one years of age gave a history of uterine discharge since November 1, 1926. In January, she consulted a well known physician in Minnesota, who discovered an ulcerative proliferative process about the cervix. At the time it did not seem typical of carcinoma, and a suspicion of luetic infection was entertained. This was apparently confirmed by a strongly positive blood Wassermann reaction as reported by two well known laboratories. The institution of specific therapy was followed by several toxic reactions from the mercurial as well as the arsenical preparations. When it was discontinued the neuritis and other toxic effects were relieved, and four weeks later the Wassermann blood reaction was completely negative. The serologic reaction from the husband's blood was likewise neg-

ative. The pathologic process gradually progressed and assumed the type of a carcinomatous growth. When brought to Des Moines for examination, a new condition was noted in the formation of an extensive diphtheritic membrane covering the entire vaginal wall, from which positive cultures of diphtheria bacillus were obtained. The diphtheritic membrane cleared up promptly after the use of diphtheria antitoxin. The patient succumbed as the result of profound anemia and exhaustion before radium or surgical therapy could be instituted for the carcinomatous process. This case presented the combination of carcinoma and a diphtheritic infection in the same patient, with a positive Wassermann blood reaction, suggesting a further syphilitic infection.

The reference by the essayist to the development of pneumonia in a lung with preexisting chronic tuberculosis, brings forcibly to mind the old dictum of Dr. Osler, "Study the patient rather than the disease". An acute pneumonia developing in a patient with a crippled heart from previous attacks of rheumatism permits a prognosis of a probable exitus letalis on the fifth or sixth day of the illness. If a patient fifty years of age or more, with a previous history of pulmonary tuberculosis contracts an acute pneumonia the course is usually atypical, the crisis rarely occurs, and convalescence is slow if he does not succumb in the meantime.

Dr. Koch (closing)—I have no apologies to offer for making the diagnosis I did at the time, and yet I am criticizing myself for not making the correct diagnosis earlier. There is no reason why one should not think of tuberculosis in a chest like this. Physical signs of abscess or cavity formation in the location found in this chest should make one think of tuberculosis, even though the bacilli were not found in the sputum at the time and he had the appearance of a pneumonia patient. I am glad Dr. Bierring brought out the question of the Wassermann reaction. There were a number of Wassermanns made before and after I saw him. They were all positive. He gave a history of a single genital sore, which was followed by a characteristic scar and he had a general lymphatic enlargement. At post-mortem we found no evidence of syphilis unless the round cell infiltration in the aorta could be so classified. This, Dr. Starry thinks is a rather characteristic syphilitic lesion. Another interesting point pathologically, the trachea was almost and the left bronchus completely blocked. Fowler mentions this as a differential point between tuberculosis and syphilis. In tuberculosis, there is very rarely any blocking in the bronchus, while the lungs frequently have blocked areas. I am glad Dr. Scarborough brought up the question of periodical health examinations. If this boy had had a careful physical examination any time during the two years he had a cough, the condition would probably have been diagnosed long ago. I believe this man had tuberculosis of the lungs during this whole period, and if he had syphilis which is very probable he did, the syphilis activated the tuberculous process.

TYPES OF COLONIC FECAL OUTLETS

CHARLES J. DRUECK, M.D., Chicago, Illinois

With the several indications in mind three different types of fecal outlets may be constructed according to the nature of the patient's illness. These are:

1. A fecal fistula.
2. A temporary colostomy.
3. A permanent colostomy or abdominal anus.

A FECAL FISTULA

A fecal fistula is a sinus extending from within the bowel to the external skin through which the intestinal contents escape externally. Such an outlet produces no obstruction to the fecal current, and therefore but part of the intestinal contents escape at this opening and the major portion passes onward along the natural channel. Such a fistula may be so slender that only gas and liquid material is discharged while the semi-solid and firm feces pass on through the rectum, or the rent in the bowel may be so large as to allow large fecal masses to be discharged.

Such fistula usually result from penetrating or gunshot wounds, abdominal operations upon the intestines or appendix, deep seated abscess, strangulated hernia; or perforation from foreign bodies, instrumentation, worms, or benign or malignant ulceration. A fecal fistula may be unintentionally constructed when the surgeon unskillfully attempts to establish a colostomy.

PRELIMINARY COLOSTOMY

A preliminary colostomy is often performed to provide drainage and to empty the bowel of its feces ten to fourteen days before the colon is excluded, resected or amputated for cancer, polyposis or inflammatory lesions. Such an opening helps the patient to recover from his toxemia, shortens the second step of the operation, provides a clean operative field and minimizes the danger of postoperative sepsis.

The object to be accomplished and the findings after a careful intraabdominal examination determine whether a temporary or permanent colostomy shall be performed; the two operations differ somewhat.

As a preliminary step in resection of the bowel for cancer or stricture of the rectum where it is hoped to re-establish the continuity of the fecal tract a temporary colostomy affords an opportunity to make an examination of the abdominal contents and determine the local extent of the disease together with the amount of involvement of the neighboring organs (bladder and

uterus), the lymphatics and the liver. Also whether the sigmoid is sufficiently long and healthy so that it can be brought down to the lower segment.

TEMPORARY COLOSTOMY

The colostomy opening whether temporary or permanent provides an intestinal obstruction sufficient to cause all or the major part of the intestinal contents to pass out through the artificial opening.

A temporary colostomy is indicated in those cases in which the disease is deemed curable by local treatment or surgical procedure, and in which it is intended to re-establish the normal fecal current later. This type of operation is also employed where the patient is in extremis requiring immediate relief from obstruction but who cannot withstand even a slight amount of surgical shock. In such instances the procedure must be conducted under a local anesthetic and with the utmost dispatch. The indications for a temporary colostomy have been much restricted since the introduction of appendicostomy and cecostomy.

The temporary colostomy must be so constructed that when it has served its purpose and is not further needed the opening may be closed without endangering the patient. The older types of operation necessitated resection of the bowel and this procedure was more fatal than the original operation. The present temporary colostomy, however, can be made in such a manner that it may be closed without opening the peritoneal cavity or resecting any portion of the gut.

In the temporary colostomy the stoma may be placed near the lesion thus facilitating subsequent topical treatments. Also there is no need of leaving a length of sigmoid below the opening for resection as is done in cancer cases.

PERMANENT COLOSTOMY (ABDOMINAL ANUS)

No type of artificial anus is a satisfactory substitute for the normal sphincter ani; and a colostomy is resorted to as a palliative measure in

1. Inoperable cancer.
2. Where the sphincter muscles have been removed.
3. Tubular stricture of the rectum.
4. Multiple polyposis with severe hemorrhage.
5. Chronic severe diarrhea accompanied with pain, hemorrhage and exhaustion.
6. Excision of the rectum (proctectomy).

There are two conditions essential for a serviceable colostomy:

1. The abdominal anus must be controllable.
2. All feces must be prevented from reaching the diseased area.

Unless these two requisites are constantly borne in mind during the operation, the surgeon will find he has made a fecal fistula believing he was establishing an artificial anus; and his patient will suffer all the disadvantages without obtaining the benefits of a colostomy. The feces will be discharged upon the skin but will also pass along the deeper (mesenteric portion) of the exposed knuckle of bowel into the gut below.

A THREE STAGE COLOSTOMY OR COLECTOMY

The three stage operation is serviceable as a method of delivering the cancerous gut outside of the abdomen and removing it after suturing the upper and lower limbs of the bowel together and also to the abdominal wall. Later the stoma is closed under local anesthesia.

The abdominal opening should always, when possible, be made by splitting the fibers of the several layers rather than by an open incision because the intramuscular method of approach contributes much to the subsequent muscular control over the bowel movements.

The manner of suturing the bowel to the abdominal wall will depend upon whether a temporary relief or a permanent artificial anus is intended.

The final toilet of the abdomen will depend upon whether the bowel is to be opened immediately or may be deferred for two or three days until peritoneal adhesions have formed and shut off the abdominal cavity.

If the bowel is opened at once, thus completing the operation at one sitting the introduction of a flanged glass tube of the Paul or Mixer types, to which a rubber tube is attached to conduct away the intestinal contents adds much to the safety of the technic.

Colostomy is generally performed upon the left side using the descending colon, but is occasionally required on the ascending bowel and in such instances the steps of the operation are identical. The lumbar colostomy is obsolete and need not be described.

STATE MEDICINE IN CANADA

It is reported that there is a probability of the passage of a bill in favor of state medicine by the Canadian parliament. It appears that there exists a traveling clinic manned by government physicians, that travels through outlying districts, affording minor surgical treatment to those needing it, at a moderate fee, which may develop into state medicine.

ARGYRIA WITH THE REPORT OF A CASE

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A survey of argyria is of interest because of the rarity of the disease and the dearth of information found on this subject in the medical literature.

The first case of argyria or silver poisoning was reported by Fourcroy in 1791. A few cases of it were described in the first part of the nineteenth century and the number of reported cases greatly increased about the middle of that century when epilepsy and tabes were treated with silver nitrate. Several cases among Bohemian glass workers, who used silver solutions in their occupation of coating glass pearls, were reported by Shubert in 1896. It was believed that they absorbed the silver through the mouth. Two cases of generalized argyria were described by Koelsch of Munich in 1912. These patients were supposed to have been affected either by dust inhalations, cutaneous absorption, or both. Localized argyria has been observed in silver workers by Lewin and Blaschko. A case in which the discoloration was localized to the nose and which had been caused by treating pimples with a silver nitrate crayon for over a year has been reported by Beeson of Chicago.

Argyria manifests itself in two forms, that in which the pigmentation is generalized and that in which it is localized.* Localized argyria occurs usually on the exposed parts of the body such as the hands, face and forearms. The blue or violet line on the gums is one of the earliest symptoms noted but is not present in every case. The pigmentation is of a bluish or slatey-gray color. Argyria is produced by the absorption of soluble silver salts through the mucous membranes, wound surfaces, skin, or, as some have thought, by way of the respiratory tract. In the most severe cases, the skin presents a bluish-gray discoloration, as do also the conjunctiva and visible mucous membranes. The process is a chronic one and the discoloration is permanent. Some claim that after a period of many years there is a slight decrease in the discoloration of the skin. The pigmentation is found to be most marked in the stroma of the papillæ just beneath the rete and around the sebaceous glands, as Stedman has observed. The pigmentation decreases in intensity towards the deeper layers of the skin. Koebert believes that the soluble organic compound of silver is the direct cause of the pigmentary changes in the skin. Localized argyria is caused

by the handling of soluble silver salts in various occupational work or by the local application of silver preparations in the treatment of some skin conditions. I recently examined a patient in whom the argyria was due to the absorption of silver salts through abrasions of the skin of the hands. The patient was a photographer who rinsed his hands many times a day in a developing solution which contained soluble silver salts. I have been unable to find a similar case in the literature although it is a well known fact that photographic developing solutions contain this chemical compound.

Generalized argyria is nearly always due to the ingestion of soluble silver salts. My associate, Dr. Grimes, observed a case of argyria in a junk dealer who had been accustomed to smelt various metals.

CASE REPORT

A fairly well nourished man, aged twenty-four, presented himself for examination on November 3, 1926. His chief complaint was distress in the lower right quadrant. The family and past history were negative except for the fact that he had been engaged as a commercial photographer for many years. Several years previously he had noticed a bluish gray discoloration of the skin of both hands. Gradually this discoloration involved all of the exposed parts of the body but was especially noticeable on the face and hands. I discovered that the patient was in the habit of washing his hands frequently each day in a photographic developing solution.

General examination was essentially negative. The blood count and the urinalysis were normal. The blood Wassermann was negative. The roentgenray of the colon was also negative.

The pain in the lower right quadrant was believed to be due to chronic appendicitis but the patient was not having sufficient trouble to warrant surgery at that time. A diagnosis of argyria was made.

Discussion—Argyria must be differentiated from acetanilid poisoning and Addison's disease. The blue line on the gums may be confused with the line found in cases of lead poisoning but the occupation, or history of the ingestion of soluble silver salts, will determine which condition is present. The discoloration found in acetanilid poisoning is caused by the formation of methemoglobin, due to the destruction of the red blood cells after the long continued use of acetanilid, usually in the form of bromo seltzer. The pigmentation of Addison's disease is commonly associated with extreme weakness, low blood-

pressure, gastrointestinal disturbances, and sometimes emaciation.

There is very little to offer in the treatment of argyria. Yandell has reported two cases in which he has given large doses of potassium iodid in conjunction with mercurial vapor baths over a period of several months. But, for the most part, these patients have a permanent discoloration of the skin. Great care should be exercised by those whose occupations bring them in contact with soluble silver salts for a protracted time. Frequent cleansing of the hands and some protective covering for the exposed parts is indicated for those who are continuously exposed to silver preparations. Caution should be employed in prescribing silver nitrate as only from 5 to 30 grams of this drug, given over a considerable period of time, are sufficient to produce a clearly defined case of argyria.

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ILEO-RECTOSTOMY

A successful method of uniting intestines without the use of sutures or mechanical button

WILLIAM A. STOECKS, M.D., Davenport

This case is being reported almost nine years after the operation. Sufficient time has elapsed to prove the efficacy of the novel procedure.

Occasionally complications arise when the conventional technique is impossible, and then the mind is taxed to develop some method by which the problem may be solved.

The patient under discussion was admitted to Mercy Hospital on December 6, 1918, suffering with intense pain and rigidity in the right lower quadrant. Temperature was 99; pulse 70; R.B.C. 4,150,000; W.B.C. 17,300; hemoglobin 76 per cent; she also gave a history of previous operation fifteen years ago.

The operation was performed December 7, 1918. A large abscess, about the size of a coconut, was discovered in the ileocecal region. This abscess involved a portion of the ascending colon which necessitated a resection of about five inches of the colon. It was impossible at the time to make an anastomosis and consequently a fecal

fistula was established. Drainage tubes were placed in the cul-de-sac.

The patient responded very nicely to this operation, draining fecal material and pus freely. The temperature ranged between 101.3 and 99.3 until December 12, when it reached 98, occasionally rising to 100 until December 21, when it remained at 98.

The second operation was performed January 4, 1919, when an attempt was made to close the fistula and make an anastomosis between the ileum and colon. Owing to the adhesions binding down the ascending colon, to a stricture of the transverse colon to distorted anatomy, and to the fact that five inches of the colon had been removed at the first operation, it was found impossible. Drainage tubes were reinserted with the hope that resolution would occur in the inflammatory mass permitting sufficient relaxation of the bowel so that an approximation of intestines could be accomplished later.

Patient continued draining until the third operation. Temperature ranged from 101.4 to 99 until January 21, 1919, when it remained normal. On March 13 the third operation was performed.

The problem which confronted us now was how to anastomose the ileum to the remaining large bowel. As there was a stricture of the transverse colon, it was necessary to make the union to the lower portion of the descending colon or rectum. The plan which was finally decided upon proved successful. Through the anus about three inches from the external opening two perforations were made just large enough to permit the entrance of two hard rubber tubes twelve inches long and one-half inch in diameter reaching through these openings to the ileocecal region. The proximal end of one tube was sewed into the remains of the ascending colon and the proximal end of the second tube was sewed into the distal end of the ileum. Traction was then made upon both of these tubes, pulling both the colon and the ileum down into the openings in the lower bowel. The tubes were then shortened by cutting off the distal ends and were fastened to the anus by means of a stitch. The idea was to create an anastomosis between the rectum and the distal end of the ileum and proximal end of the colon, and this was to be accomplished by maintaining these parts in apposition long enough to establish adhesions and by allowing fecal material to pass through the tube without coming in contact with the raw edges of the bowel and interfering with healing. Slight bowel movement appeared in six hours and there was some drainage from wound. Large bowel movement occurred through

one of the tubes on March 17. On March 24 the tube was expelled.

After the operation the temperature was 101.3, pulse 140, respiration 30. On April 7, 1919, temperature became normal. Patient was discharged on April 11, 1919, with slight drainage (infection) from abdominal wound still persisting. The patient reacted to the last operation very nicely and made an uninterrupted recovery. She has been under observation during these past nine years and at present writing is in perfect health.

IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines
Commissioner, State Department of Health

PREVALENCE OF COMMUNICABLE DISEASE

During the month preceding April 18, the communicable diseases which have been chiefly prevalent in Iowa were influenza, smallpox, and scarlet fever. No cases of poliomyelitis were reported.

Influenza—Our pandemic of influenza was a comparatively short lived affair. We are still receiving reports of epidemic outbreaks in new communities but it is very clear that the crest of the pandemic wave, as far as the state is concerned, has passed. This is no doubt the most extensive epidemic of influenza that the state has had since 1918. The cases for the most part were rather mild. Many, however, were of a severe type and no doubt are chiefly responsible for the increase (compared with same time last year) in the number of deaths from pneumonia which are now being reported.

The rather remarkably rapid subsidence of this wave of influenza and the comparatively few deaths attributed to such may presumably be in part explained by better education of the general public regarding preventive measures.

Smallpox—Southern and more especially southwestern Iowa continues to lead the state in the prevalence of smallpox. This has been the case for more than a year. The mildness of the cases is largely responsible for the lack of an urge on the part of many people to be protected by vaccination. When people in general become better acquainted with the mildness of vaccination, all dread of such should disappear. In this connection, I am wondering how many physicians have seen a copy of Dr. Leake's very fine contribution on "Questions and Answers on Smallpox Vaccination" published in Public Health Report, vol. xlii, No. 4, (January 28, 1927), of the United States Public Health Service. A copy of

such may be obtained by sending five cents (coin) to the Superintendent of Documents, Government Printing Office, Washington, D. C. Or better still, you can, without charge, get a copy of this same article together with fine colored illustrations of the several types of reactions to smallpox vaccine by writing to Johnson and Johnson, New Brunswick, New Jersey, and asking for Bulletin No. 1137. Both articles give illustrations of the new "multiple pressure" method of vaccinating which is rapidly growing in favor.

The colored illustrations found in the Johnson and Johnson bulletin show especially well the three types of reactions—namely, vaccinia, vaccinoid, and immunity reaction—described on page 41 of the 1927 edition of the "Rules and Regulations of the State Department of Health Relating to Communicable Diseases". They are of great importance in securing the early release from quarantine of persons who have been exposed to the disease.

Scarlet Fever—Scarlet fever is being reported from almost every county in the state. Every physician will be interested in the paper to be given by Dr. Rhoads of the scarlet fever committee of Chicago which is to be given at the meeting of the State Medical Society in Cedar Rapids. The title of Dr. Rhoads' paper is "Control of Scarlet Fever Epidemics with Special Reference to Immunization". It will be presented immediately after lunch Wednesday, May 9th.

Poliomyelitis—No cases of poliomyelitis have been reported to the State Department of Health during the past month. It is still too early to make any kind of prediction as to whether or not we are likely to have any considerable epidemic of the disease during the late summer or early fall. Every physician in Iowa will be interested in the paper on "Poliomyelitis; with Special Reference to its Epidemiology and Prevention", which will be presented by Dr. W. H. Frost of the United States Public Health Service on the program of the State Medical Society, Friday forenoon, May 11th.

Measles—Measles has prevailed extensively in only a few places. This is an off year for measles in Iowa. Such was to be expected after the extensive epidemics of last year.

Infection with Endamoebic Dysenteriae—During the past year we have received reports of a number of cases of amoebic dysentery. In only twelve of these, however, have the reports indicated that the diagnosis was actually confirmed by laboratory examination and the finding of the specific parasite. Most of these cases were of a

chronic type and some of them did not have actual symptoms of dysentery—the intestinal symptoms being limited to a consciousness on the part of the patient that something was wrong in connection with the intestinal tract.

We have reason to believe that infection with *Endamoebic dysenteriae* is very much more common than is either reported or recognized. Examinations made elsewhere seemed to indicate that such infection has been on the increase since the return of the soldiers from overseas. A person may be a carrier of the infection for many years. The cysts of the amoeba eliminated with the feces may remain alive for several days to several months and are likely to find their way to food through various channels.

In this connection it is well to remember the four great F's in connection with the transmission of intestinal diseases, namely, Feces, Fingers, Flies, and Food. The cysts of amoeba may remain alive in the intestines of flies for two days. It is therefore very obvious that flies have abundant opportunity of depositing them on food.

In way of prevention more emphasis should be placed on the washing of one's hands with soap and water before handling food and the avoiding of eating places frequented by flies or where it is not reasonably certain that those who handle the food are scrupulously clean. It is well to avoid Oriental restaurants entirely.

We believe that physicians would do well to keep the possibility of amoebic infection in mind whenever there is a chronic disturbance of the intestinal tract which cannot be well explained on other grounds. Certain California investigators have apparently established a rather definite relationship between amoebic infection and certain systemic disturbances chief among which is a chronic form of arthritis. It would therefore seem well to consider the possibility of a systemic amebiasis in cases of chronic multiple arthritis, if foci of bacterial infection such as tonsils, teeth, sinuses, gall-bladder, prostate gland, etc., have been eliminated.

PHYSICIANS' INTEREST IN THE BARBER AND COSMETOLOGY LICENSING ACTS

As all physicians are, by this time, aware, the last legislature passed bills providing for the licensing of barbers and cosmetologists. The bills also provided for the promulgation of "Sanitary Rules" by the State Department of Health. These sanitary rules are supposed to be posted in a conspicuous place in every barber shop and beauty parlor. You have no doubt already seen a copy. We shall be glad to send a copy to any physician on request.

There are several other features in connection with the barber and cosmetology acts which should be of interest to physicians. One of these is that barber shop and beauty parlor operators are not permitted under the law to treat disease. Complaint has come to this office from several sources that certain barbers are attempting to remove warts and moles and to treat cases of barber's itch. Such work should, very obviously, not be entrusted to anyone but a physician. Until the recent licensing act went into effect, it was not possible to have very much control over the activities of barbers and cosmetologists.

Another feature that should interest every physician is that these newly licensed groups are taking a very much greater interest in putting into effect their law and in establishing proper relationship between their respective groups and the public than the medical profession is. The medical profession will be interested in knowing that in the barber division of the State Department of Health, there are four full time barbers—one devoting his time to the office and three to field work. The medical profession, on the other hand, aside from two administrative officers whose duties are manifold touching on every phase of public health activities, have no one to look after the special interests of the medical profession. This no doubt accounts in large part for the fact that Iowa has one of the smallest departments of health in the country and that in Iowa, perhaps more than in most places, physicians do not have the control over health matters which, by virtue of their special training, naturally belongs to them. The medical profession of the state should have at least two or three representatives connected with the State Department of Health just as every other efficient state department of health has and these should be responsive to the wishes of the medical profession in the carrying out of the important work of preventing disease and promoting better health and in seeing to it that a proper relationship is established and maintained between the medical profession and the general public. Your state health commissioner will gladly cooperate in the securing of such needed legislation. He cannot do it alone. The initiative, indeed, should come from the medical profession itself.

A GENEROUS GIFT

The late Dr. George Eitel of Minneapolis, gave the University of Minnesota the sum of \$80,000 to create a fund for needy medical students, and for a loan fund for the use of students needing financial aid in pursuing their course in medicine.

The Journal of the Iowa State Medical Society

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OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVIII May, 1928 No. 5

THE HOSPITAL NUMBER OF THE JOURNAL
OF THE AMERICAN MEDICAL
ASSOCIATION

In the Iowa Hospital Section we find a total of 138 general hospitals, with a capacity of 6,854 beds, and having on the average 3,967 patients, presenting a percentage of occupancy of 57.8 per cent, compared with a percentage of 66 for all the general hospitals in the United States. There are in Iowa fourteen hospitals for nervous and mental cases, with a capacity of 9,236 beds and having 8,246 patients.

According to an analysis prepared by Dr. Colwell, secretary of the Council on Medical Education and Hospitals, Iowa shows a total of 183 registered hospitals, with 17,433 beds and 13,066 patients, plus 959 bassinets, or a grand total capacity of 18,392 beds for all the hospitals in the state.

Considering the agencies that control hospitals in Iowa, we find Federal Hospitals 3, beds 707, average patients 599; State Hospitals 18, beds 9,507, average patients 8,302; County Hospitals 13, beds 824, average patients 505; City Hospitals 8, beds 175, average patients 72; City-County Hospitals 1, beds 20, average patients 10. Total Government owned 43, beds 11,233, average patients 9,509.

PHYSICAL THERAPY DEPARTMENTS IN HOSPITALS

General Hospitals 59, average patients 2,205. Tuberculosis Hospital 1, average patients 79.

Nervous and Mental Hospitals 7, average patients 6,952. Total 67, average patients 9,236. Institutions refused registration 14, bed capacity 416. Title of Superintendent M.D. 7, Registered Nurse 1, lay 5. Nurse Training School in non-registered hospitals.

The hospital situation in Iowa does not materially differ from the hospital situation in other states, but we must take into account the fact that we have no large cities or centers of population and very few large hospitals. Our problem must therefore consist in a service and equipment of a more intensive personal character, in which the head of a service must feel it a duty to give a degree of personal attention that in great hospitals of our large cities fall to thoroughly trained assistants. The question of specialists must have a somewhat different meaning in our relatively small hospitals. The closed hospitals in our eastern cities have some rather acute problems in relation to the outside practicing physicians quite different from the friendly relation of the Iowa hospital staffs, and the city practicing physicians. There is much to be said in favor of efficiency of the closed hospital, but for a happy and friendly professional relation the open staff hospital free from unnecessary jealousy.

The reader who desires to make a comparative study of hospital development will find an immense amount of material in the March 24th number of the Journal of the American Medical Association.

Hospitals in Iowa Registered by the American
Medical Association

In the following list of registered hospitals in Iowa for each hospital is first given the type of service; second, number of beds; third, average number of patients; fourth, control, or ownership, or auspices under which it is conducted; fifth, whether or not there is nurses' training school; sixth, head of hospital; seventh, year established.

- Ackley, Hardin County—Pop. 1,426.
Miller Hospital—Gen.; 6 beds; 3 pts.; indiv.; no N. T. Sch.; M.D.; est. 1916.
- Akron, Plymouth County—Pop. 1,324.
Akron Hospital—Gen.; 20 beds; 12 pts.; indiv.; no N. T. Sch.; R. N.; est. 1920.
- Albia, Monroe County—Pop. 5,067.
Miner's Hospital—Gen.; 35 beds; 20 pts.; indiv.; N. T. Sch.; R. N.; est. 1912.
- Algona, Kossuth County—Pop. 3,724.
Algona Hospital—Gen.; 12 beds; 6 pts.; indiv.; N. T. Sch.; R. N.; est. 1907.
- Allerton, Wayne County—Pop. 928.
Parker Hospital—Gen.; 7 beds; 3 pts.; indiv.; no N. T. Sch.; R. N.; est. 1920.

- Alta, Buena Vista County—Pop. 1,290.
Alta Hospital—Gen.; 15 beds; 8 pts.; indp.; no N. T. Sch.; R. N.; est. 1912.
- Ames, Story County—Pop. 6,270.
Iowa State College Hospital—Gen.; 100 beds; 30 pts.; state; no N. T. Sch.; R. N.; est. 1886.
- Anamosa, Jones County—Pop. 2,881.
Mercy Hospital—Gen.; 35 beds; 20 pts.; church; N. T. Sch.; R. N.; est. 1893.
Reformatory Hospital—Gen.; 25 beds; 8 pts.; state; no N. T. Sch.; lay; est. 1874.
- Atlantic, Cass County—Pop. 5,329.
Atlantic Hospital—Gen.; 34 beds; 25 pts.; indp.; no N. T. Sch.; M. D.; est. 1903.
C. R. Jones Hospital—Gen.; 40 beds; 20 pts.; indiv.; no N. T. Sch.; M. D.; est. 1912.
- Battle Creek, Ida County—Pop. 785.
New Battle Creek Hospital and Sanatorium—Gen.; 16 beds; 12 pts.; indiv.; no N. T. Sch.; R. N.; est. 1916.
- Bellevue, Jackson County—Pop. 1,663.
Moulton Hospital—Gen.; 20 beds; 10 pts.; indiv.; no N. T. Sch.; M. D.; est. 1919.
- Belmond, Wright County—Pop. 1,736.
Belmond Hospital—Gen.; 8 beds; 4 pts.; indiv.; no N. T. Sch.; M. D.; est. 1915.
- Bettendorf, Scott County—Pop. 2,503.
Masonic Sanitarium—Conv.; 50 beds; new; frat; no N. T. Sch.; lay; est. 1927.
- Boone, Boone County—Pop. 12,663.
Eleanor Moore Hospital—Gen.; 50 beds; 25 pts.; county; no N. T. Sch.; R. N.; est. 1900.
- Burlington, Des Moines County—Pop. 26,375.
Burlington Protestant Hospital—Gen.; 105 beds; 80 pts.; church; N. T. Sch.; R. N.; est. 1897.
Des Moines County Asylum—N. and M.; 66 beds; 60 pts.; county; no N. T. Sch.; lay; est. 1850.
Mercy Hospital—Gen.; 40 beds; 30 pts.; church; N. T. Sch.; lay; est. 1893.
St. Francis Hospital—Gen.; 50 beds; 31 pts.; church; no N. T. Sch.; lay; est. 1886.
- Carroll, Carroll County—Pop. 4,254.
St. Anthony's Hospital—Gen.; 100 beds; 50 pts.; church; N. T. Sch.; R. N.; est. 1905.
- Cedar Falls, Blackhawk County—Pop. 6,516.
Sartori Memorial Hospital—Gen.; 21 beds; 15 pts.; city; no N. T. Sch.; R. N.; est. 1914.
- Cedar Rapids, Linn County—Pop. 53,100.
Mercy Hospital—Gen.; 200 beds; 82 pts.; church; N. T. Sch.; lay; est. 1900.
St. Luke's M. E. Hospital—Gen.; 175 beds; 78 pts.; church; N. T. Sch.; lay; est. 1884.
- Centerville, Appanoose County—Pop. 8,486.
St. Joseph's Hospital—Gen.; 44 beds; 24 pts.; church; N. T. Sch.; R. N.; est. 1903.
- Chariton, Lucas County—Pop. 5,175.
Dr. Yocom's Hospital—Gen.; 20 beds; 10 pts.; indiv.; no N. T. Sch.; M. D.; est. 1900.
- Charles City, Floyd County—Pop. 7,350.
Cedar Valley Hospital—Gen.; 24 beds; 14 pts.; city; no N. T. Sch.; R. N.; est. 1914.
- Cherokee, Cherokee County—Pop. 4,552.
Cherokee State Hospital—N. and M.; 1,350 beds; 1,240 pts.; state; N. T. Sch.; M. D.; est. 1902.
Sioux Valley Hospital—Gen.; 35 beds; 11 pts.; indp.; N. T. Sch.; R. N.; est. 1917.
- Clarinda, Page County—Pop. 4,511.
Clarinda State Hospital—N. and M.; 1,200 beds; 1,200 pts.; state; N. T. Sch.; M. D.; est. 1885.
- Clarion, Wright County—Pop. 2,826.
Dr. Sam's Private Hospital—Gen.; 5 beds; 1 pt.; indi.; no N. T. Sch.; lay; est. 1917.
Tompkins and Walker Hospital—Gen.; 10 beds; 4 pts.; part; no N. T. Sch.; M. D.; est. 1919.
- Clinton, Clinton County—Pop. 26,436.
Clinton Isolation Hospital—Iso.; 9 beds; 1 pt.; city; no N. T. Sch.; M. D.; est. 1913.
Jane Lamb Memorial Hospital—Gen.; 90 beds; 62 pts.; indp.; N. T. Sch.; R. N.; est. 1880.
St. Joseph's Mercy Hospital—Gen.; 62 beds; 40 pts.; church; N. T. Sch.; R. N.; est. 1884.
- Colfax, Jasper County—Pop. 2,504.
Colfax Sanitarium and Hospital—Gen.; 26 beds; 18 pts.; indiv.; no N. T. Sch.; M. D.; est. 1914.
- Council Bluffs, Pottawattamie County—Pop. 36,162.
Christian Home Orphanage—Chil.; 19 beds; 12 pts.; indp.; no N. T. Sch.; lay; est. 1882.
City Isolation Hospital—Iso.; 12 beds; 2 pts.; city; no N. T. Sch.; lay; est. 1904.
Iowa School for Deaf—Gen.; 26 beds; 5 pts.; state; no N. T. Sch.; lay; est. 1855.
Jennie Edmundson Memorial Hospital—Gen.; 109 beds; 75 pts.; indp.; N. T. Sch.; lay; est. 1884.
Mercy Hospital—Gen.; 125 beds; 97 pts.; church; N. T. Sch.; lay; est. 1903.
St. Bernard's Hospital—N. and M.; 240 beds; 204 pts.; church; no N. T. Sch.; lay; est. 1887.
- Cresco, Howard County—Pop. 3,195.
St. Joseph's Mercy Hospital—Gen.; 30 beds; 12 pts.; church; no N. T. Sch.; lay; est. 1911.
- Creston, Union County—Pop. 8,034.
Greater Community Hospital—Gen.; 50 beds; 24 pts.; indp.; N. T. Sch.; lay; est. 1894.
- Davenport, Scott County—Pop. 56,727.
Iowa Soldier's Orphans' Home—Chil.; 20 beds; 20 pts.; state; no N. T. Sch.; lay; est. 1865.
Mercy Hospital—Gen.; 125 beds; 77 pts.; church; N. T. Sch.; lay; est. 1869.
Pine Knoll Sanitarium—T. B.; 84 beds; 48 pts.; county; no N. T. Sch.; M. D.; est. 1913.
St. Luke's Hospital—Gen.; 75 beds; 60 pts.; church; N. T. Sch.; R. N.; est. 1895.
- Decorah, Winneshiek County—Pop. 4,039.
Decorah Hospital—Gen.; 20 beds; 8 pts.; church; no N. T. Sch.; R. N.; est. 1914.
- Denison, Crawford County—Pop. 3,591.
Denison Hospital—Gen.; 15 beds; 1 pt.; indiv.; no N. T. Sch.; R. N.; est. 1907.

- Des Moines, Polk County—Pop. 126,468.
 Benedict Home—Mater.; 30 beds; 12 pts.; indp.; no N. T. Sch.; lay; est. 1882.
 Broadlawns Polk County Public Hospital (cont. Dept.)—Iso.; 30 beds; 2 pts.; county; N. T. Sch.; M. D.; est. 1902.
 Broadlawns Polk County Public Hospital—Gen.; 100 beds; 90 pts.; county; N. T. Sch.; M. D.; est. 1921.
 Broadlawns Polk County Public Hospital (T. B. Dept.)—T. B.; 100 beds; 79 pts.; county; N. T. Sch.; M. D.; est. 1921.
 Iowa Lutheran Hospital—Gen.; 150 beds; 118 pts.; church; N. T. Sch.; lay; est. 1914.
 Iowa Lutheran Maternity Hospital—Mater.; 37 beds; 25 pts.; church; N. T. Sch.; lay; est. 1901.
 Iowa Methodist Hospital—Gen.; 239 beds; 113 pts.; church; N. T. Sch.; lay; est. 1901.
 Mercy Hospital—Gen.; 148 beds; 90 pts.; church; N. T. Sch.; R. N.; est. 1893.
 Polyclinic Hospital—Gen.; 60 beds; 40 pts.; indp.; no N. T. Sch.; M. D.; est. 1923.
 The Retreat—N. and M.; 50 beds; 35 pts.; indp.; no N. T. Sch.; M. D.; est. 1905.
 Salvation Army Rescue Home and Maternity Hospital—Mater.; 25 beds; 10 pts.; church; no N. T. Sch.; lay; est. 1899.
- Dubuque, Dubuque County—Pop. 40,996.
 Finley Hospital—Gen.; 90 beds; 55 pts.; indp.; N. T. Sch.; lay; est. 1890.
 St. Joseph's Mercy—Gen.; 100 beds; 58 pts.; church; N. T. Sch.; R. N.; est. 1879.
 St. Joseph's Sanitarium—N. and M.; 225 beds; 175 pts.; church; no N. T. Sch.; lay; est. 1895.
 Sunny Crest Sanitarium—T. B.; 55 beds; 50 pts.; county; no N. T. Sch.; M. D.; est. 1921.
- Eldora, Hardin County—Pop. 3,189.
 Eldora Booth Memorial Hospital—Gen.; 18 beds; 3 pts.; indp.; no N. T. Sch.; M. D.; est. 1921.
 Iowa Training School for Boys—Gen.; 24 beds; 8 pts.; state; no N. T. Sch.; lay; est. 1868.
- Elkader, Clayton County—Pop. 1,223.
 Clayton County Hospital for Insane—N. and M.; 50 beds; 47 pts.; county; no N. T. Sch.; lay; est. 1898.
- Emmetsburg, Palo Alto County—Pop. 2,688.
 Palo Alto Hospital—Gen.; 10 beds; 6 pts.; indp.; no N. T. Sch.; R. N.; est. 1921.
- Estherville, Emmet County—Pop. 4,690.
 Birney Hospital—Gen.; 15 beds; 10 pts.; indiv.; no N. T. Sch.; M. D.; est. 1919.
 Coleman Hospital—Gen.; 50 beds; 19 pts.; indiv.; N. T. Sch.; est. 1916.
- Fairfield, Jefferson County—Pop. 5,948.
 Jefferson County Hospital—Gen.; 29 beds; 20 pts.; county; N. T. Sch.; R. N.; est. 1912.
- Ft. Des Moines, Polk County—Pop. 700.
 Station Hospital—Gen.; 41 beds; 20 pts.; army; no N. T. Sch.; M. D.; est. 1900.
- Ft. Dodge, Webster County—Pop. 19,347.
 Boulder Lodge Sanitarium—T. B.; 15 beds; 10 pts.; indiv.; no N. T. Sch.; M. D.; est. 1898.
 St. Joseph's Mercy Hospital—Gen.; 112 beds; 51 pts.; church; N. T. Sch.; R. N.; est. 1908.
- Ft. Madison, Lee County—Pop. 12,066.
 Atchison, Topeka & Sante Fe Ry. Hospital—Indus.; 40 beds; 21 pts.; indus.; no N. T. Sch.; M. D.; est. 1888.
 Iowa State Penitentiary Hospital—Gen.; 26 beds; 20 pts.; state; no N. T. Sch.; lay; est. 1898.
 Sacred Heart Hospital—Gen.; 75 beds; 30 pts.; church; no N. T. Sch.; lay; est. 1912.
- Glenwood, Mills County—Pop. 2,614.
 Iowa Institution for Feeble-minded Children—Fe-Mi.; 1,650 beds; 1,580 pts.; state; no N. T. Sch.; M. D.; est. 1876.
- Goldfield, Wright County—Pop. 726.
 Goldfield Hospital—Gen.; 5 beds; 2 pts.; indiv.; no N. T. Sch.; R. N.; est. 1919.
- Grinnell, Poweshiek County—Pop. 5,362.
 Grinnell Community Hospital—Gen.; 54 beds; 18 pts.; indp.; N. T. Sch.; R. N.; est. 1918.
 St. Francis Hospital—Gen.; 35 beds; 15 pts.; church; no N. T. Sch.; lay; est. 1920.
- Hamburg, Fremont County—Pop. 1,817.
 Hamburg Hospital—Gen.; 12 beds; 5 pts.; indiv.; no N. T. Sch.; R. N.; est. 1921.
- Harlan, Shelby County—Pop. 2,811.
 Harlan Hospital—Gen.; 9 beds; 5 pts.; indiv.; no N. T. Sch.; R. N.; est. 1926.
- Hartley, O'Brien County—Pop. 1,306.
 Hand Hospital—Gen.; 12 beds; 4 pts.; indiv.; no N. T. Sch.; lay; est. 1909.
- Hawarden, Sioux County—Pop. 2,491.
 Hawarden Hospital—Gen.; 10 beds; 5 pts.; part.; no N. T. Sch.; M. D.; est. 1911.
- Holstein, Ida County—Pop. 1,372.
 Holstein Hospital—Gen.; 10 beds; 2 pts.; indiv.; no N. T. Sch.; M. D.; est. 1912.
- Hull, Sioux County—Pop. 791.
 Hull Hospital—Gen.; 15 beds; 6 pts.; indp.; no N. T. Sch.; M. D.; est. 1921.
- Ida Grove, Ida County—Pop. 2,020.
 Ida Grove General Hospital—Gen.; 12 beds; 5 pts.; part.; no N. T. Sch.; R. N.; est. 1919.
- Independence, Buchanan County—Pop. 3,673.
 Independence State Hospital—N. and M.; 1,479 beds; 1,413 pts.; state; N. T. Sch.; M. D.; est. 1868.
 Peoples Hospital of Buchanan County—Gen.; 28 beds; 12 pts.; indp.; no N. T. Sch.; R. N.; est. 1917.
- Iowa City, Johnson County—Pop. 11,267.
 Iowa State Psychopathic Hospital—N. and M.; 60 beds; 38 pts.; state; N. T. Sch.; M. D.; est. 1919.
 Mercy Hospital—Gen.; 100 beds; 45 pts.; church; N. T. Sch.; R. N.; est. 1878.

- Rohrbacher Sanitarium—Gen.; 8 beds; 5 pts.; indiv.; no N. T. Sch.; M. D.; est. 1920.
- University Hospital—Gen.; 683 beds; 645 pts.; state; N. T. Sch.; M. D.; est. 1870.
- Iowa Falls, Hardin County—Pop. 3,945.
- Ellsworth Hospital—Gen.; 20 beds; 7 pts.; city; no N. T. Sch.; R. N.; est. 1902.
- Jefferson, Greene County—Pop. 3,133.
- Jefferson Hospital—Gen.; 10 beds; 3 pts.; indiv.; no N. T. Sch.; lay; est. 1916.
- Keokuk, Lee County—Pop. 14,423.
- W. C. Graham Protestant Hospital—Gen.; 40 beds; 25 pts.; church; N. T. Sch.; R. N.; est. 1901.
- St. Joseph's Hospital—Gen.; 90 beds; 60 pts.; church; N. T. Sch.; R. N.; est. 1882.
- Knoxville, Marion County—Pop. 3,801.
- U. S. Veterans' Hospital No. 57—N. and M.; 586 beds; 491 pts.; Vet. Bu.; no N. T. Sch.; M. D.; est. 1920.
- Lake City, Calhoun County—Pop. 3,110.
- McCrary Hospital—Gen.; 25 beds; 6 pts.; part.; no N. T. Sch.; M. D.; est. 1918.
- Le Mars, Plymouth County—Pop. 4,683.
- Community Hospital—Gen.; 26 beds; 14 pts.; indiv.; no N. T. Sch.; R. N.; est. 1920.
- Sacred Heart Hospital—Gen.; 50 beds; 25 pts.; church; N. T. Sch.; lay; est. 1917.
- Leon, Decatur County—Pop. 1,990.
- Leon Hospital—Gen.; 6 beds; 2 pts.; part.; no N. T. Sch.; lay; est. 1918.
- Manchester, Delaware County—Pop. 3,111.
- Manchester Hospital—Gen.; 10 beds; 4 pts.; indiv.; no N. T. Sch.; M. D.; est. 1918.
- Manning, Carroll County—Pop. 1,710.
- Wyatt Hospital—Gen.; 20 beds; 8 pts.; indiv.; no N. T. Sch.; M. D.
- Maquoketa, Jackson County—Pop. 3,643.
- City Memorial Hospital—Gen.; 20 beds; 9 pts.; part.; no N. T. Sch.; lay; est. 1923.
- Marengo, Iowa County—Pop. 2,048.
- Mineral Springs Hospital and Sanitarium—Gen.; 15 beds; 8 pts.; indp.; N. T. Sch.; lay; est. 1915.
- Marshalltown, Marshall County—Pop. 15,731.
- Evangelical Deaconess' Home and Hospital—Gen.; 125 beds; 54 pts.; church; N. T. Sch.; lay; est. 1913.
- Iowa Soldiers' Home Hospital—Gen.; 300 beds; 133 pts.; state; no N. T. Sch.; M. D.; est. 1887.
- Mercy Hospital—Gen.; 60 beds; 32 pts.; church; N. T. Sch.; R. N.; est. 1902.
- Singleton Hospital—EENT.; 10 beds; 4 pts.; indiv.; no N. T. Sch.; M. D.; est. 1902.
- Mason City, Cerro Gordo—Pop. 22,682.
- Iowa Odd Fellows and Orphans' Home Hospital—Chil.; 16 beds; 9 pts.; frat.; no N. T. Sch.; lay; est. 1924.
- Park Hospital—Gen.; 50 beds; 37 pts.; indp.; N. T. Sch.; R. N.; est. 1910.
- St. Joseph's Mercy Hospital—Gen.; 65 beds; 40 pts.; church; N. T. Sch.; R. N.; est. 1916.
- Story Hospital—Gen.; 12 beds; 6 pts.; part.; N. T. Sch.; R. N.; est. 1901.
- McGregor, Clayton County—Pop. 1,239.
- McGregor Hospital and Sanitarium—Gen.; 14 beds; 8 pts.; indiv.; no N. T. Sch.; M. D.; est. 1900.
- Milford, Dickinson County—Pop. 1,103.
- Milford Hospital—Gen.; 6 beds; 2 pts.; indiv.; no N. T. Sch.; M. D.; est. 1908.
- Monticello, Jones County—Pop. 2,257.
- John McDonald Hospital—Gen.; 29 beds; 20 pts.; indp.; N. T. Sch.; R. N.; est. 1916.
- Mt. Pleasant, Henry County—Pop. 4,445.
- Henry County Soldiers' and Sailors Memorial Hospital—Gen.; 20 beds; 14 pts.; county; no N. T. Sch.; R. N.; est. 1920.
- Mt. Pleasant State Hospital—N. and M.; 1,350 beds; 1,300 pts.; state; N. T. Sch.; M. D.; est. 1850.
- Muscatine, Muscatine County—Pop. 16,668.
- Bellevue Hospital—Gen.; 30 beds; 14 pts.; indp.; N. T. Sch.; R. N.; est. 1905.
- Benjamin Hershey Memorial Hospital—Gen.; 50 beds; 21 pts.; indp.; N. T. Sch.; R. N.; est. 1902.
- Nevada, Story County—Pop. 2,668.
- Iowa Sanitarium and Hospital—Gen.; 50 beds; 28 pts.; church; N. T. Sch.; M. D.; est. 1890.
- New Hampton, Chickasaw County—Pop. 2,539.
- St. Joseph's Hospital—Gen.; 50 beds; 35 pts.; church; no N. T. Sch.; lay; est. 1917.
- Newton, Jasper County—Pop. 6,627.
- City Hospital—Gen.; 60 beds; 19 pts.; city; no N. T. Sch.; R. N.; est. 1917.
- Oakdale, Johnson County—Pop. 62.
- State Sanitarium for Treatment of Tuberculosis—T. B.; 398 beds; 283 pts.; state; no N. T. Sch.; M. D.; est. 1908.
- Odebolt, Sac County—Pop. 1,445.
- Odebolt Hospital—Gen.; 9 beds; 3 pts.; indiv.; no N. T. Sch.; R. N.; est. 1922.
- Oelwein, Fayette County—Pop. 7,455.
- Mercy Hospital—Gen.; 35 beds; 16 pts.; church; no N. T. Sch.; est. 1926.
- Onawa, Monona County—Pop. 2,043.
- Onawa Hospital—Gen.; 10 beds; 5 pts.; indiv.; no N. T. Sch.; M. D.; est. 1923.
- Orange City, Sioux County—Pop. 1,620.
- De Bey Hospital—Gen.; 10 beds; 3 pts.; part.; no N. T. Sch.; M. D.; est. 1912.
- Osage, Mitchell County—Pop. 2,953.
- Nissen Hospital—Gen.; 9 beds; 4 pts.; city; no N. T. Sch.; lay.
- Sayre Hospital—Gen.; 7 beds; 4 pts.; part.; no N. T. Sch.; M. D.; est. 1907.
- Osceola, Clarke County—Pop. 2,648.
- Harken Hospital—Gen.; 20 beds; 14 pts.; indiv.; no N. T. Sch.; lay; est. 1911.

- Osceola Hospital—Gen.; 15 beds; 5 pts.; part.; no N. T. Sch.; lay; est. 1902.
- Osceola Hospital and Sanitarium—Gen.; 15 beds; 5 pts.; indiv.; no N. T. Sch.; M. D.; est. 1900.
- Oskaloosa, Mahaska County—Pop. 9,427.
- Mercy Hospital—Gen.; 35 beds; 14 pts.; part.; N. T. Sch.; lay; est. 1909.
- Ottumwa, Wapello County—Pop. 23,003.
- Ottumwa Hospital—Gen.; 54 beds; 42 pts.; indp.; N. T. Sch.; lay; est. 1894.
- St. Joseph's Hospital—Gen.; 76 beds; 40 pts.; church; N. T. Sch.; lay; est. 1914.
- Sunny Slope Sanitarium—T. B.; 50 beds; 45 pts.; county; no N. T. Sch.; lay; est. 1916.
- Perry, Dallas County—Pop. 5,642.
- King's Daughter's Hospital—Gen.; 22 beds; 18 pts.; church; no N. T. Sch.; R. N.; est. 1913.
- Postville, Allamakee County—Pop. 1,039.
- Postville Hospital—Gen.; 21 beds; 10 pts.; indiv.; no N. T. Sch.; M. D.; est. 1912.
- Primghar, O'Brien County—Pop. 991.
- Ward Memorial Hospital—Gen.; 8 beds; 2 pts.; indiv.; no N. T. Sch.; lay; est. 1915.
- Red Oak, Montgomery County—Pop. 5,578.
- Powell School for Backward and Nervous Children—N. and M.; 50 beds; 35 pts.; part.; no N. T. Sch.; M. D.; est. 1903.
- Red Oak Clinical Hospital—Gen.; 30 beds; 8 pts.; part.; no N. T. Sch.; R. N.; est. 1924.
- Rock Valley, Sioux County—Pop. 1,327.
- Rock Valley Hospital—Gen.; 10 beds; 1 pt.; indiv.; no N. T. Sch.; lay; est. 1927.
- Saylor, Polk County—Pop. 25.
- Polk County Hospital for Insane—N. and M.; 160 beds; 120 pts.; county; no N. T. Sch.; M. D.; est. 1879.
- Sheldon, O'Brien County—Pop. 3,488.
- Cram Hospital—Gen.; 14 beds; 4 pts.; indiv.; no N. T. Sch.; R. N.; est. 1902.
- Myers Hospital—Gen.; 20 beds; 5 pts.; indiv.; no N. T. Sch.; M. D.; est. 1920.
- Samaritan Hospital—Gen.; 10 beds; 5 pts.; part.; no N. T. Sch.; R. N.; est. 1914.
- Shenandoah, Page County—Pop. 5,255.
- Henry and Catherine Hand Hospital—Gen.; 30 beds; 20 pts.; indp.; N. T. Sch.; R. N.; 1918.
- Sibley, Osceola County—Pop. 1,803.
- Osceola Hospital—Gen.; 18 beds; 8 pts.; part.; no N. T. Sch.; R. N.; est. 1914.
- Sibley Hospital—Gen.; 13 beds; 7 pts.; part.; no N. T. Sch.; M. D.; est. 1902.
- Sigourney, Keokuk County—Pop. 2,210.
- Sigourney Hospital—Gen. 11 beds; 4 pts.; indiv.; no N. T. Sch.; M. D.; est. 1921.
- Sioux City, Woodbury County—Pop. 71,227.
- City Detention Hospital of Sioux City—Iso.; 20 beds; 10 pts.; Cy. and Co.; no N. T. Sch.; R. N.; est. 1903.
- Lutheran Hospital—Gen.; 76 beds; 48 pts.; church; N. T. Sch.; R. N.; est. 1902.
- Methodist Hospital—Gen.; 110 beds; 73 pts.; church; N. T. Sch.; lay; est. 1920.
- St. Joseph's Mercy Hospital—Gen.; 175 beds; 100 pts.; church; N. T. Sch.; R. N.; est. 1890.
- St. Vincent's Hospital—Gen.; 125 beds; 58 pts.; church; N. T. Sch.; R. N.; est. 1907.
- Sioux City Maternity Hospital—Mater.; 28 beds; 10 pts.; indp.; N. T. Sch.; R. N.; est. 1909.
- Spencer, Clay County—Pop. 4,500.
- Spencer Hospital—Gen.; 10 beds; 7 pts.; indp.; no N. T. Sch.; R. N.; est. 1915.
- Stacyville, Mitchell County—Pop. 549.
- Smith Hospital—Gen.; 7 beds; 3 pts.; indiv.; no N. T. Sch.; M. D.; est. 1926.
- Stanton, Montgomery County—Pop. 669.
- Dr. W. A. Howard's Hospital—Gen.; 7 beds; 3 pts.; indiv.; no N. T. Sch.; M. D.; est. 1922.
- Storm Lake, Buena Vista County—Pop. 3,658.
- Swallum Hospital—Gen.; 25 beds; 9 pts.; indiv.; no N. T. Sch.; M. D.; est. 1910.
- Story City, Story County—Pop. 1,459.
- Old Peoples Home and Hospital—Gen.; 6 beds; 2 pts.; church; no N. T. Sch.; lay; est. 1914.
- Tipton, Cedar County—Pop. 2,109.
- Tipton Hospital—Gen.; 5 beds; 3 pts.; indiv.; no N. T. Sch.; M. D.; est. 1923.
- Toledo, Tama County—Pop. 1,659.
- Iowa State Juvenile Home—Chil.; 10 beds; 3 pts.; State; no N. T. Sch.; lay; est. 1920.
- Sac and Fox Tuberculosis Sanitarium—T. B.; 80 beds; 79 pts.; Indian; no N. T. Sch.; M. D.; est. 1913.
- Vinton, Benton County—Pop. 3,381.
- Iowa School for the Blind—Gen.; 20 beds; 8 pts.; state; no N. T. Sch.; lay; est. 1853.
- Washington, Washington County—Pop. 4,697.
- Washington County Hospital—Gen.; 30 beds; 15 pts.; county; N. T. Sch.; R. N.; est. 1912.
- Waterloo, Blackhawk County—Pop. 36,771.
- Allen Memorial Hospital—Gen.; 47 beds; 31 pts.; church; N. T. Sch.; lay; est. 1925.
- Convalescent Home—Conv.; 6 beds; 5 pts.; part.; no N. T. Sch.; R. N.; est. 1924.
- St. Francis Hospital—Gen.; 73 beds; 65 pts.; church; no N. T. Sch.; R. N.; est. 1912.
- Synodical Presbyterian Hospital—Gen.; 50 beds; 28 pts.; church; N. T. Sch.; R. N.; est. 1904.
- Waukon, Allamakee County—Pop. 2,662.
- Rominger & Jeffries Emergency Hospital—Gen.; 6 beds; 3 pts.; part.; no N. T. Sch.; M. D.; est. 1912.
- Hall Hospital—Mater.; 6 beds; 1 pt.; indiv.; no N. T. Sch.; lay; est. 1918.
- Waverly, Bremer County—Pop. 3,552.
- St. Joseph's Hospital—Gen.; 50 beds; 25 pts.; church; N. T. Sch.; lay; est. 1904.

Webster City—Hamilton County—Pop. 5,657.

St. Joseph's Mercy Hospital—Gen.; 25 beds; 12 pts.; church; no N. T. Sch.; R. N.; est. 1907.

West Union, Fayette County—Pop. 1,777.

West Union Community Hospital—Gen.; 20 beds; 10 pts.; city; no N. T. Sch.; R. N.; est. 1915.

Williamsburg, Iowa County—Pop. 1,251.

Watt Hospital—Gen.; 25 beds; 15 pts.; indiv.; no N. T. Sch.; M. D.; est. 1916.

Winterset, Madison County—Pop. 3,063.

Winterset Hospital—Gen.; 15 beds; 6 pts.; indiv.; no N. T. Sch.; lay; est. 1921.

Woodward, Dallas County—Pop. 984.

State Hospital and Colony for Epileptics—Epi.; 786 beds; 350 pts.; state; no N. T. Sch.; M. D.; est. 1917.

Total registered hospitals in Iowa, 183; capacity, 17,433; average census, 13,066. Hospitals not admitted to the register, 14; capacity, 416.

WHEN DO PROFESSORS WEAR OUT?

During the twenty-two years that the Carnegie Foundation for the Advancement of Teaching has been active, it has paid out in retirement allowances to professors, and in pensions to their widows more than \$15,985,000. A total of 929 teachers have retired on allowances from the Foundation, and 469 widows have received pensions, according to the annual report. During the year ending June 30, 1927, the average age at which teachers in receipt of allowances from the Foundation chose to retire was 68.28 years; for the five preceding years, the average of retirement was 66.8 years. Fifty professors retiring between 1922 and 1927 at Columbia, Harvard, Johns Hopkins, Princeton and Yale served until an average age of 67.6, those of Yale retiring earliest at 66.1 years and those at Johns Hopkins latest at 68.4 years. The average retiring allowance has risen from \$2,126 in 1920 to \$2,401 at present. A total of eighty-nine universities and colleges in the United States and Canada are now associated with the Foundation for the payment of retiring allowances and pensions; of these sixty-five contribute equally with their teachers towards the purchase of joint contractual retiring annuities through the Teachers' Insurance and Annuity Association of America, which was organized by the Carnegie Foundation and financed by the Carnegie Corporation about nine years ago. The total resources of the Foundation now are \$30,857,000 of which \$12,428,000 is a reserve for liquidating pension liabilities accruing after 1928; \$830,000 is to assist colleges and universities in adopting the contributory plan of retiring annuities, and \$601,000 is an emergency reserve. The resources of the Foundation increased about \$675,000 during the last fiscal year. All its securities are in bonds.—*Jour. A. M. A.*

NUMBER OF PHYSICIANS IN BRITISH MEDICAL REGISTER

The British Medical Journal of September 3, 1927, published the following table showing the numerical state of the medical register for the period 1880-1926:

Year	Names added	
	in year	Total
1880.....	1,123	22,936
1890.....	1,266	29,163
1900.....	1,345	36,355
1910.....	1,062	40,483
1920.....	1,457	44,761
1926.....	2,120	52,614

Owing to the large increases during the recent years, reflecting the excessive entries of students immediately after the war, there is now more than one name in the medical register to every 1000 inhabitants, the ratio of doctors to population now being considerably higher than at any previous time.

The report states that in the thirteen years before the war the annual entry of medical students in Great Britain and Ireland averaged about 1400; during the war period, although many left to serve with the forces, the whole number studying in the schools grew steadily larger. In 1914 the entries rose to 1600, in 1918 to 2253 and in the following year to 3420. In 1923 the entries dropped to 545 and in 1926 they rose to 1260.

THE CLINICAL USE OF VACCINES

The Editor of the Journal of the Indiana State Medical Society, always watchful, progressive, safely conservative and independent, expresses his views on the clinical use of vaccines so clearly and fairly that we are constrained to quote his words.

"We used to think that vaccine therapy was about a fifty-fifty shot. This opinion was based upon the fact that in about half of the cases in which the treatment was used the results seemed to be very satisfactory, whereas in the other half it signally failed. The clinical results were the ones upon which the favorable opinion was based. However, we gradually came to the conclusion that some of these favorable results could not be attributed to the vaccine at all but to other measures, and sometimes to no measure at all—other than the recuperative power of nature itself. Now comes the Journal of the A. M. A. which tells us that advocates of vaccine therapy, either autogenous or stock vaccine, are not able to advance laboratory proof that is convincing but prefer to depend upon the clinical data which is notoriously uncertain. Colds, coryza, upper respiratory infections and the like may respond so promptly to the usual drug therapy or even to no treatment whatever that it is impossible and unfair to make the clinical results a basis of proof for the justification of vaccine therapy. It is just as well for physicians to avoid being over-enthusiastic concerning

new methods of treatment until ample time has elapsed to prove results, and especially until we have had an opportunity to analyze the results from every angle."

MEDICAL PERSONNEL IN THE WORLD WAR

In an address given at the dedication of the honor room and unveiling of the World War Memorial Tablet by the Philadelphia County Medical Society, Philadelphia, Merritte W. Ireland, surgeon general, U. S. Army, is reported to have said that at the time of the Armistice, November 11, 1918, there were on the rolls of the United States Army Medical Department 40,000 officers, 21,000 nurses and 281,000 enlisted men; of these eighty-seven officers and 672 enlisted men were killed in action or died of wounds, and 419 officers, 204 nurses and 4,446 enlisted men died from disease and other causes, making a grand total of 5,828 members of the medical department who gave up their lives. At the beginning of the World War, the medical department comprised in round numbers only 980 officers, 400 nurses and 6,600 enlisted men.—*Jour. A. M. A.*

NOMINATIONS TO FILL VACANCIES ON COUNCIL ON PHARMACY AND CHEMISTRY ON THE EDITORIAL BOARD OF THE SPECIAL JOURNALS AND THE VARIOUS COMMITTEES

The Board appointed Drs. George M. Kober and George M. Piersol to represent the Association in the American Association for the Advancement of Science and Associated Societies. Drs. Kober and Piersol have represented the Association in this capacity for several years.

The rest of the meeting was devoted to the consideration, seriatim, and the report of the Board of Trustees to the House of Delegates, reports of standing and special committees, budgets and other routine matters—*Jour. A. M. A.*

HONORS TO DR. SPILMAN

One of the pleasant features in the practice of medicine is the recognition of the practitioner's merits while he is still alive and permitted to participate. We have written many obituary notices and in only a few instances did it appear that the Doctor was made conscious of his value to a community. In the personality of the man to the open appreciation of the public, is a short step but it is difficult to measure. Dr. Spilman made but little noise in the world, but for reasons not easy to say, his presence or absence was noted. There are psychological elements in some men whose quiet and unostentatious manner reveal a strength of char-

acter and loyalty of purpose, difficult to estimate. Then there is the environment, in which the fitness of the elements are so nicely balanced that the adjustments are as nearly perfect as can be made by human means.

Dr. Spilman has practiced in Ottumwa many years, and slowly, the elements above pointed out, grew into a fullness that drew the medical and social elements about him in an expression of true affection.

So it came about that doctors, nurses and guests could sit down to a feast with a forgetfulness of every element of discord and for the moment, contemplate the gracious features of life. To Dr. Spilman and others thus happily favored, the occasion will remain a joyful recollection in his declining years.

PHYSICAL THERAPY

Not long ago we had the privilege of attending a meeting of a medical society at which two noted advocates of physical therapy discussed the subject with great enthusiasm. The question came to us: Is this a new system of medicine that takes from us all, or a greater part of the therapeutics of former days? Are the carefully prepared books on *materia medica* and therapeutics to be cast aside as obsolete? We are not prepared for so radical a change. It may be admitted without argument that there is much of value in the claims of the physio-therapists, but that it should be regarded as a distinct system of medicine we seriously doubt. Its place is not yet determined but may be very useful in properly selected cases, as are many other medicinal agents.

The Council of the American Medical Association on Physical Therapy will no doubt in the course of time fix its value, if it is not killed outright by the commercial activities of the manufacturers of apparatus, and the enthusiasm of its advocates.

CANCER RISK

Dr. A. G. Nichols, in the Canadian Medical Association Journal (February, 1928), after a study of various statistical reports on cancer and after eliminating possible elements of error, arrives at the conclusion that the chances of death from cancer in persons over seventy years of age have increased 40 per cent or over in men and 30 per cent or more in women, in the period from 1910 to 1924, even admitting that on account of better conditions of living has increased the number of people who have reached that age.

Dr. Dublin in a study of 125,000 deaths from cancer, finds that for each of the ages from ten up to the age of ninety, for males, there was an increase in the cancer hazard running approximately from 40 to 50 per cent, among females somewhat less.

A rather alarming state of facts for old people.

DEATHS OF PHYSICIANS

During 1927, the Journal of American Med. Ass'n published the obituaries of 2,790 physicians of the United States, including ten who were temporarily absent from the country or who resided in Alaska, Hawaii or Porto Rico. This number is larger by 113 than the number reported last year and comprises 2,689 male white physicians, eighty-three women and eighteen negroes. Deducting the number of deaths published from the number of graduates of medical schools for the fiscal year ended June 30, 1927, leaves a net increase in the profession of 1,245.

Ages—The average age of physicians whose obituaries were published in 1927 was 62 years. The average age of the 1926 decedents was 62.8 years. Ninety-one physicians lived to be 85 or more years of age and one lived to be 102; 164 died in the age period 80-84; 236 died between 75 and 79 years of age; 362 between 70 and 74; 389 between 65 and 69; 379 between 60 and 64; 380 between 55 and 59; 296 between 50 and 54; 230 between 45 and 49; 108 between 40 and 44; 80 between 35 and 39; 46 between 30 and 34, and twenty-nine between 25 and 29 years of age. It is of interest, although probably not significant, to note in some states the percentage of physicians who lived eighty-five or more years; it was 7.2 in Indiana; 5.2 in California; 4.7 in Illinois; 3 in Ohio; 2.8 in Pennsylvania; 2.7 in Massachusetts; 1.3 in New York, and 0.82 in Texas. In 1926, California was first in this list, then Illinois, Massachusetts, Ohio, Indiana, New York, and Pennsylvania. March was again the month of most deaths, with 245.

Accidental deaths—There were 140 physicians who died as the result of accidents, a sharp rise above the ninety-four of the previous year, which amounts to an increase of almost 49 per cent. The automobile figured in sixty-six deaths, an increase of thirty, or of 83 per cent, over 1926; falls killed twenty-five, an increase of nine; drowning, fifteen, an increase of six; firearms, seven; railroads, six; overdoses of medicine, six; burns, two, and each of the following one: motorcycle, airplane, propellor of yacht, prune pit in throat, automobile exhaust gas, roentgen-ray equipment, illuminating gas, attack by a bull, and explosion. The circumstances were not specified in four cases.

Suicides and homicides—Suicides increased from thirty-seven in 1926 to forty-nine published in 1927. As usual, the favorite method was firearms, in seventeen cases. Poison killed eight; gas, six; incised wounds, five; drowning, five; drugs, four; hanging, two; anesthetic and jumping from high places, each one. There were fourteen homicides, four of which were by patients or their relatives.

Causes of death—Some contributory causes are again included in this tabulation. A report stating that the cause was, for example, influenza and pneumonia is tabulated under both diseases. The most common cause of death reported during 1927 was heart disease. Of the 851 reports of heart disease, 125 specified angina pectoris and 203 endocarditis or

myocarditis. The second most frequent cause was cerebral hemorrhage, with 326 deaths, 18.1 per cent of which occurred before the physicians were 55 years of age. Paralysis was reported in forty-six other cases, and of these only 8.7 per cent occurred before 55 years of age. Pneumonia, the third most frequent cause, was reported in 259 cases; bronchopneumonia was specified in forty-three. Thus far down the list the order is the same as it was last year, but a new occupant, cancer, now takes fourth place, coming up from fifth in 1926. Cancer, with 228 deaths, displaced nephritis, which was in fourth place. Cancer of the stomach and liver accounted for fifty-nine deaths; cancer of the intestine, thirty-eight; of the prostate, twenty; of the buccal cavity, seventeen; of the female genital organs, two; in ninety-two cases the organ affected was not specified. Another incident which may not be significant was that 33 per cent of the cancer deaths in 1927 occurred after the physicians were 70 years of age, whereas in the previous year this figure amounted to more than 90 per cent. Fifth on the list of most frequent causes is nephritis, with 205 deaths, with twenty-three cases specified as acute; sixth is accidents; seventh, arteriosclerosis, with eighty-eight deaths; tuberculosis was eighth on the list, with seventy-five deaths, of which sixty-nine were specified as pulmonary. The ninth place belongs to "embolism and thrombosis", with fifty-seven deaths. It should be noted that cases of coronary thrombosis were tabulated under this head. Then comes diabetes, with forty-four deaths, 25 per cent of which occurred after 70 years of age. Last year 42 per cent of the diabetes deaths occurred after 70 years of age. Cholecystitis and cholelithiasis also caused forty-four deaths; appendicitis, thirty-six; influenza, thirty, a decrease from sixty-one of the previous year; septicemia, twenty-one; cirrhosis of the liver, twenty-one, as compared with twelve for the previous year; that may also be significant. Diseases of the prostate other than cancer caused twenty-six deaths; ulcer of the stomach or duodenum, nineteen; brain tumor, sixteen; meningitis, twelve; encephalitis, ten; leukemia, nine; general paralysis of the insane, eight; typhoid, five; paratyphoid, two, and locomotor ataxia, alcoholism, drug addiction and pellagra, each three. Among the rare causes were carbuncle, two; acute articular rheumatism, two, and each of the following one: agranulocytic angina, food poisoning, splenomegaly, purpura hemorrhagica, Hodgkin's disease, sprue. Those which could not be classified so specifically included three under "other diseases of the spinal cord"; sixteen under other diseases of the genitourinary system; eleven under diseases of the bones and organs of locomotion; seventeen under other diseases of the nervous system; twenty under other diseases of the respiratory tract; forty-four under other diseases of the digestive tract; fifty-seven under uremia; forty-seven under senility. The cause of death in thirty-six cases could not be classified because the necessary information was not at hand.

Civil and military activities—There were 169 physicians reported dead in 1927 who had been teachers in medical schools; sixty-seven who had been members of boards of education; sixty-three, members of boards of health; twenty-five, members of state legislatures; twenty-three, members of boards of medical examiners; thirty-three, coroners; twenty-three, authors; twenty-five, druggists; thirty-seven, mayors; sixteen, members of city councils; eighteen, bank presidents; fifteen, editors; ten, dentists; six, justices of the peace; four, missionaries; three, lawyers; three, postmasters; two, judges; five, clergymen; thirteen, members of the U. S. Navy; six of the army; thirty-one who served in the Spanish-American War; eighty-nine veterans of the Civil War, and 186 veterans of the World War.

Association officers—Among those who died in 1927 were two former vice-presidents of the American Medical Association; twelve members or former members of the House of Delegates; one trustee; ten section officers and one member of a council.—*Jour. A. M. A.*, February 1, 1928.

VERMONT STATE MEDICAL SOCIETY AND BOSTON MEDICAL AND SURGICAL JOURNAL

Beginning with the January 26, 1928, number of the Boston Medical and Surgical Journal appears the first installment of the Vermont State Medical Society's affiliation with the Journal. Following the affiliation of New Hampshire comes Vermont. We expect in due time to announce a New England affiliation under a name satisfactory to these several states, thus establishing one of the greatest medical journals in the country.

ADJUSTING FEES

Dr. Louis J. Hirshman of Detroit, suggests a plan for adjusting fees which has been employed by individual physicians for some time.

He would abandon the practice of charging by the visit and make a gross charge based on the value of the service without regard to the number of prescriptions or visits made, somewhat after the plan adopted by surgeons of charging for the operation without regard to the after treatment.

DOCTOR'S HEART

Dr. Albert S. Hyman of New York City, after analyzing 100 deaths of physicians from cardiovascular disease, arrives at the conclusion that a study of the blood-pressure of these 100 physicians in age groups, failed to elicit anything noteworthy. That while it is true that cardiovascular disease is the greatest cause of death among physicians, the belief that there is a clinical entity known as the doctor's heart, is without foundation.

SOCIETY PROCEEDINGS

Polk County Medical Society

The Polk County Medical Society met for its regular monthly meeting at the Fort Des Moines Hotel, February 28, 1928. The meeting was called to order by the president, Dr. R. H. Parker.

Due to the secretary being tardy the reading of the minutes of the last meeting was postponed.

A moving picture was then shown by the Iowa Tuberculosis Association.

Dr. E. Wolcott then presented a case of a badly mutilated arm which he was repairing.

Program

Nephrotosis—C. W. Losh, M.D.

Treatment of Hip Fractures—C. E. Ruth, M.D.

Both papers were illustrated with skiagraphs. Dr. Ruth also presented and described some of his apparatus for treating fractures.

The secretary then read the minutes of the January meeting, which were approved as read.

The application of Dr. Wm. Sproul for membership was presented, having been favorably acted on by the board of censors. It was moved that the rules be suspended and Dr. Sproul be unanimously elected to membership. Duly seconded and carried.

The application of Dr. Carl Stutsman was then read and referred to the board of censors.

There were forty-six members present, nine visitors, total fifty-five.

L. K. Meredith, Sec'y.

The Polk County Medical Society met for its regular monthly meeting at the Mercy Hospital. This was the second clinical meeting of the year and the clinic was conducted by the staff of Mercy Hospital. The meeting convened at 7:40 p. m., with the president, Dr. R. H. Parker in the chair.

The minutes of the previous meeting were read by the secretary. They were approved as read.

The secretary then read the applications of Dr. Robert Phinney and Dr. James Wallace for membership in this society. These were referred to the board of censors.

The application of Dr. Carl Stutsman was then presented to the society, it having been passed upon favorably by the board of censors. It was moved and seconded that a unanimous vote be cast for Dr. Stutsman. Unanimously carried.

Program

1. Dr. J. S. Weingart presented a case of Pernicious Anemia.

2. Dr. J. R. Condon presented two cases of Incipient Tuberculosis of the Lungs.

3. Rheumatic Fever with Acute Endocarditis and Subacute Appendicitis—Dr. D. F. Crowley.

4. Hemorrhage of New Born—Dr. J. E. Kessell.

5. Surgical Myxedema Following Subtotal Thyroidectomy in a Case of Riedel's Struma—Dr. Howard Gray.

6. Chronic Arthritis—Dr. R. A. Weston.

7. Facial Paralysis, Eye Complications—Dr. H. C. Schmitz.

8. Sheehan's Columellar Incision in Correction of Nasal Malformations—Dr. R. J. Lynch.

9. Renal Insufficiency Secondary to Pus Kidney Multiple Urethral Stricture and Perineal Fistula—Dr. C. W. Losh.

Members present, sixty-eight; visitors, six; total, seventy-four.

Meeting adjourned at 9:30.

L. K. Meredith, Sec'y.

Boone-Story County Medical Societies

The third bi-monthly meeting of the Boone-Story County Medical Societies was held at the Sheldon Munn Hotel in Ames on March 15.

Dinner was served to thirty members of the two societies at 6:30 p. m. after which the program by members of the Boone County Society was as follows:

Progress of Medicine in the Last Thirty-five Years—Dr. G. H. Stanger.

Metastatic Arthritis—Dr. E. M. Myers.

Modern Treatment of Fractures—Dr. A. B. Deering.

Dr. W. W. Beam of Rolfe was a guest of the societies. Dr. Beam is councilor of the tenth district. At the meeting held in February at the college Y. M. C. A. the program was given by the Story County Society and Dr. Channing G. Smith, councilor of the seventh district, was a guest.

M. C. Jones, Sec'y.

Linn County Medical Society

The Linn County Medical Society met at the Roosevelt Hotel, Cedar Rapids, Thursday, March 22, 1928.

Dr. H. S. Houghton, dean of the College of Medicine, State University of Iowa, read a paper the subject of which was Problems of Medical Education in the State of Iowa.

Buffet luncheon was served.

Hosts: Dr. F. G. Murry, Dr. A. K. Gifford, Dr. C. E. Irwin, Dr. B. L. Sheldon and Dr. B. K. Keech.

Pottawattamie County Medical Society

The Pottawattamie County Medical Society met at the Chieftain Hotel, Council Bluffs, Thursday, March 8, 1928, with the program following a 6:30 dinner.

Fractures of the Hip—Karl R. Werndorff, M.D., Council Bluffs.

Discussion opened, X-ray Features—E. L. Hawkins, M.D., and A. V. Hennessey, M.D.

Otitis Media—L. G. Howard, M.D., Council Bluffs.

Discussion opened—Jack V. Treynor, M.D., and S. D. Maiden, M.D.

Woodbury County Medical Society

The March meeting of the Woodbury County Medical Society was held on Friday evening, March 23, 1928, at the Jackson Hotel, Sioux City.

Dr. Merrill M. Myers of Des Moines spoke on Angina Pectoris and Coronary Occlusion, with Especial Reference to Their Diagnosis.

Dr. John H. Peck of Des Moines spoke on Diagnostic Problems in Pulmonary Disease.

Dinner at 6:30 p. m.

Roscoe Jepson, M.D., Sec'y.

Iowa Clinical Medical Society

The Iowa Clinical Medical Society celebrated its tenth year of activity with a clinic at St. Joseph's Hospital, Ottumwa, March 23, 1928.

Clinical cases were presented by Drs. E. T. Edgerly, who is the outgoing president, John Herrick, Fred Nelson, M. Bannister, H. A. Spilman, Evon Walker and F. A. Hecker, all of Ottumwa, also Dr. C. A. Boice of Washington, Iowa.

Thirty-five physicians from various parts of the state were present. Officers for the next year are: President: Dr. Russell C. Doolittle, Des Moines; vice-president, Dr. Le Roy Woodward, Mason City; secretary-treasurer, Dr. C. W. Baldrige, medical department, State University, Iowa City.

R. C. Doolittle.

FIFTH ANNUAL CONFERENCE ON GOITRE

The American Association for the Study of Goiter, consisting of internists, pathologists, radiologists, etc., as well as surgeons, will hold their fifth annual conference on goiter, in Denver, Colorado, June 18, 19 and 20.

Several men from foreign countries have signified their intention of attending. Professor Breitner of the Von Eiselberg Clinic, Vienna and Professor Albert Kœcher of Berne, Switzerland, have accepted places upon the program.

On the morning of June 18, two diagnostic clinics will be held. One at the Denver General Hospital under the direction of Drs. H. S. Plummer and H. S. Haines. The other at the Colorado General Hospital will be conducted by Dr. William D. Haggard.

The afternoon of that day will be given up to a symposium on the etiology and prophylaxis of goiter.

The second morning from 8:00 until 12:00 o'clock will be devoted to operative clinics (all goiter) at the several Denver hospitals.

The afternoon sessions of that day will be opened by an address by Prof. Dr. B. Breitner of the Von Eiselberg Clinic, Vienna, Austria. This address will be on Goiter and Iodine in Animal Experiments.

The papers of the scientific program, about thirty in number, cover particularly every phase of goiter, and no one interested in this important problem can help but profit by coming to the meeting.

All members of the state and provincial medical societies are eligible and are cordially invited to participate in the conference as attending members.

Dr. Gordon S. Fahrni of Winnipeg, Canada, is the president and Dr. Kerwin Kinard of Kansas City is vice-president.

MEDICAL SOCIETY OF THE ST. LOUIS CITY HOSPITAL REORGANIZES

At a recent meeting for the alumni of the St. Louis City Hospital, the Medical Society of the St. Louis City Hospital was reorganized and any ex-internes are reinstated in good standing on payment of this year's dues.

This organization was at one time a very wonderful society, being composed of men who had by competitive examination received appointment as interne in the city hospital and in touch with a large amount of medical material. Since the late war, this society has lost touch with many of its old members.

A social meeting is planned for June, 1928, the exact date of which all members will be notified later. A roster of living members from 1875 to 1928 is now being arranged. All members in outlying states are requested to communicate with Dr. William T. Coughlin, or Dr. J. J. Burdick, of 2106 East Grand Blvd., St. Louis.

THE OSCEOLA HOSPITAL

This enterprising hospital has undergone important improvements which have nearly doubled its capacity and supplied it with facilities for diagnosis and treatment. Among other things a \$5,000 x-ray machine has been added. As the hospital now stands, except for size, it may be ranked with the hospitals of our larger towns. The economic equipment has been placed on a modern basis. Also well arranged obstetric and fracture wards. Osceola is to be congratulated on its hospital.

ESTABLISHES RESEARCH FELLOWSHIP

Announcement has been made that the Maltbie Chemical Company of Newark, New Jersey, has contributed a grant for a research fellowship for the coming year to the department of chemistry of Princeton University.

The research work to be done under this fellowship will be fundamental in character and will cover certain phases of the chemistry of creosote and creosote compounds.

The establishment of this research fellowship is in line with the policy of the Maltbie Chemical Company to extend its research activities and to contribute to a study of the chemistry of important drugs.

THE DOUBLE TEST OF PITUITRIN

The work of Kamm and his associates in demonstrating the existence of two active principles in the posterior lobe of the pituitary body, one of which acts on uterine tissue and the other on blood-pressure, has aroused great interest in scientific circles, and especially among physicians. The Journal of the A. M. A. gave it leading editorial space in the February 25 issue, and subsequent work in the Thorndike Memorial Laboratory has confirmed the opinion of the Parke-Davis technicians that the blood-pressure raising hormone accounts for the antidiuretic or antipolyuric effect of pituitrin (New England Journal of Medicine, March 15, 1928). It is therefore extremely improbable that the posterior pituitary lobe contains more than two active principles.

But it does contain two. And these two are normally present in certain proportions; so it would seem that Parke, Davis & Co., who gave the profession the first pituitary extract and named it pituitrin, have been fully justified in applying two tests—oxytocic and pressor—to their product for the past ten years. Pituitary extract is of service in other than obstetric cases, and its value depends in part upon its ability to increase the tone of the arterial system.

Parke, Davis & Co. have just issued a booklet on Pituitrin, which will of course be sent promptly to inquiring physicians.

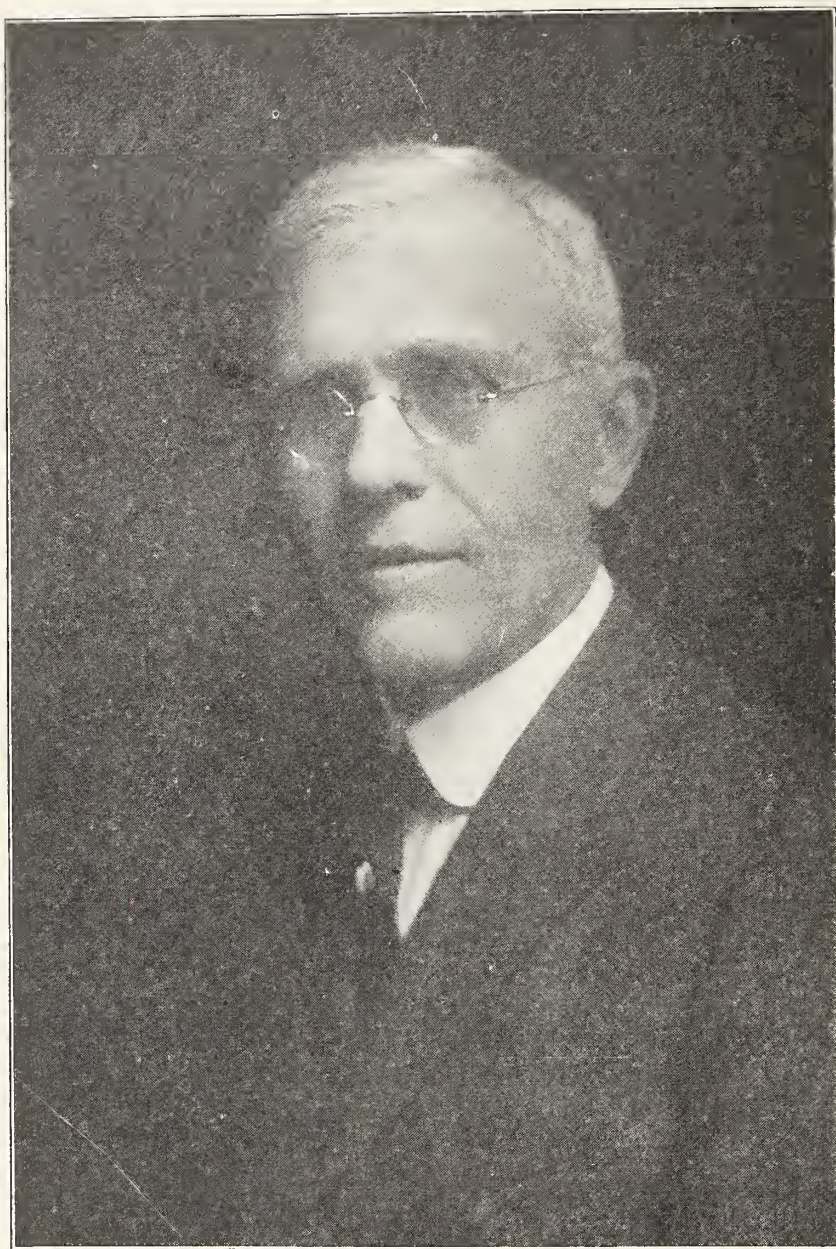
PERSONAL MENTION

Dr. A. F. Smith of Milford, has purchased the interests of Dr. Grover of Manning and will open an office in Manning in the near future. Dr. Grover is taking a special course in eye, ear, nose and throat in Brooklyn, New York.

Surgeon O. H. Cox of the United States Public Health Service, is authorized to attend the annual meeting of the American Medical Association at Minneapolis, Minnesota, on June 11 to 15, 1928.

OBITUARY

Dr. Charles J. Saunders died at Mercy Hospital, Fort Dodge, February 18, 1928, at the age of sixty-five years. Was born at Iowa City February 26, 1862. Graduated from the Iowa University School of Medicine in 1884. Practiced in Claire and later moved to Fort Dodge, where he practiced up to the time of his death. In June, 1907, he married Miss Lucy Merrill of East Eddington, Maine. He became a member of the Iowa State Medical Society in 1894, president of Webster County Medical Society and Iowa State Medical Society in 1923. Dr. Saunders was active in medical society work and his genial and friendly manner gained him many friends.



DR. CHARLES J. SAUNDERS

Resolution of Webster County Medical Society

In the passing of Doctor Saunders, this community has lost a useful member, his friends a loyal comrade, and his profession, a leader. Dr. Saunders typified all that goes to make up the ideal physician. He ever strove to uphold the dignity of his calling. He honored his profession and was a credit to it. The code of honor was the beacon light that ever directed his actions and conduct. He may have been wronged, but would not wrong any man. In dealing with his fellows he had a sense of right and justice. In honor and integrity none excelled and few were his equal.

Now in his departure we realize most keenly our loss. He leaves a vacant place none can fill. His life was unique and his character distinctive. Wise in judgment, gentle and courteous in manner, he

represented all that is embraced in the term "family physician".

Be it resolved by the Webster County Medical Society, that in the death of Doctor Saunders, we have sustained an irreparable loss, a loss that is personal to us, a loss that enters into the sacred circles that are kindred to the ties that bind about the hearth-stone and the fireside. That we deeply share with his immediate family, so sadly bereft, the sense of loss which they have sustained. That with their sorrow we mingle our own, and bow our hearts with theirs in grief.

That this resolution be spread upon the records of this society, and a copy be given to the family of Doctor Saunders.

J. M. Garrett,
G. Baldwin Palmer.
Committee.

Dr. Charles N. Dean of Sumner, Iowa, and Dr. Jeannette Throckmorton were married March 1, 1928, and just three hours after the wedding dinner Dr. Dean was taken sick and died March 11, 1928, at Methodist Hospital, Des Moines, Iowa, from rupture of the pulmonary artery with resultant massive hemorrhage.

Dr. Dean graduated from the College of Physicians and Surgeons, Keokuk, in 1907. He began practice at Kimmundy and moved to Sumner in 1909. After nine years of practice he located in Bridgeport, where he practiced five years, when he returned to Sumner in August, 1923.

In 1904 Dr. Dean married Esther Eunice Delassur at Patoka, who died on February 19, 1922. Dr. Dean married Carrel Edith Williams, who died after a lingering illness.

While in medical school at Keokuk he was a classmate of Jeannette Frances Throckmorton, to whom he was married March 1, 1928. Dr. Dean did not know that for years he was carrying a dangerously high blood-pressure. After the wedding dinner, while arranging to drive home from the old Throckmorton home, he suffered from a rupture of the pulmonary artery and died at the Methodist Hospital, Des Moines, ten days later. Thus was a happy occasion suddenly converted into a house of sorrow.

Dr. Clark Chandler Griffin, University of Michigan, 1868, died at his home in Vinton, Iowa, March 12, 1928, after a short illness from heart disease.

Active to within a month of his death Dr. Griffin spent all his long life as a practicing physician in Vinton. It was his often expressed desire to be allowed to round out an even sixty years of service in the work to which he was devoted. This ambition was frustrated by only a few weeks.

He was proud of being a doctor and looked upon his own manifold activities as subsidiary to his real work.

For many years he was physician to the Iowa College for the Blind and for several years prior to his death was the president of the board of regents of the Virginia Gay Hospital in his town. He stood firmly for the ethics of the profession and had only scorn for all the cults and "isms". He showed his faith in medicine and his desire to help in his legacy of \$100,000 to the local hospital of which he had been the head.

A self-made man, supporting himself from the age of eight, his early life was lived amid difficulties in his native state of Pennsylvania and later in Ohio whence in 1864 he enlisted in the one hundred seventy-first Ohio Infantry.

He came to Iowa just after his graduation at a time when it meant real work to be a country doctor. Fitted with better equipment than most of the men in rural communities at that time he was seen in the

possession of a large general and consultation practice.

Entering into this work without reservation he underwent a series of hardships in the way of long drives and sleepless nights that would have been the undoing of a less robust man.

In this period of his life he gave an example of untiring devotion to his patients that is remembered to this very day and which was rewarded by the life-long and unflagging confidence of those for whom he went through storm and snow to aid in their distress.

Extremely successful though he was from a material point of view he would much prefer to be remembered as a very real example of the old time family practitioner.

Dr. W. J. Hurley of Chicago, who died February 13, 1928, was born July 18, 1884 near Volga City, Iowa. He graduated from Valder's College, Decorah, in 1901, and entered the medical school of the Iowa University in September, 1904, and graduated from the Chicago College of Medicine and Surgery in June, 1908. He served an internship in St. Bernard's Hospital, Chicago, and was professor of surgery at Loyola University. Dr. Hurley gained much distinction in surgery.

Dr. W. J. Fray of Ollie died at his home November 21, 1927, at the advanced age of eighty-five years. Dr. Fray was born in Sweden and came to this country forty years ago. He graduated from the Swedish Hospital at Kroskona, Sweden.

Dr. A. John Droz of Washington, died in the Augustana Hospital, Chicago, March 14, following a cholecystectomy. A number of years ago, he had had his thyroid removed for hyperthyroidism. Of late years he has had frequent attacks of tachycardia.

Dr. Droz graduated from the Keokuk Medical College, class of 1896. He first located at Ainsworth, soon moved to West Chester, a few years later to Keota, and about fourteen years since came to Washington. Gifted with a most engaging personality, he soon built up a large following. He was able to do a considerable amount of surgery, in which he was quite successful. He was buried Saturday, March 17, 1928, at Fairfield, near where he had been born and raised.

Dr. Edith Gould Fosnes, a former Des Moines doctor, died at her home recently at San Diego, California. Many years ago Dr. Fosnes was known as Edith Gould. About fifteen years ago she married and moved to St. Paul, Minnesota. When her husband died about five years later, she went to California.

BOOK REVIEWS

MODERN MEDICINE

Its Theory and Practice, in Original Contributions by American and Foreign Authors. Edited by Sir William Osler, Bart; F.R.S. Third Edition, Thoroughly Revised. Re-edited by Thomas McCrae, M.D. Volume V. Lea & Febiger. Price, \$9.00.

This great work bearing the title of Osler's Modern Medicine was, as well known, originally edited by Sir William Osler. Before Sir William's death, it was planned by Sir William to issue a third edition, but his death placed the responsibility of another edition on his student and former associate Dr. Thomas McCrae, who was entirely familiar with Osler's plans and has brought out an edition as if Sir William was still living.

Four volumes have already been reviewed in this Journal and now we are privileged to present the fifth to our readers.

Part One opens with a presentation of Diseases of the Blood, by Dr. Richard C. Cabot. Followed by a chapter on Purpura and Hemophilia, by Dr. Joseph H. Pratt; a chapter on Diseases of the Spleen, by Dr. Edward B. Krumblaar, and a chapter on Transfusion of Blood, by Dr. Harold W. Jones.

Part, Two, on Diseases of the Lymphatic System, by Aldred Scott Warthin; Hopkins' Disease, by Dr. Warfield T. Longcope.

Part Three, Diseases of Ductless Glands, six chapters, by Dr. George Dock and Dr. H. Lissner. Diseases of the Thymus, by Dr. Aldred Scott Warthin.

Part Four, Diseases of the Urinary System, including its different divisions, by Drs. McCrae, Garrod, Rowntree, O'Hare, Brown and Young.

Part Five, Vasomotor and Trophic Disorders, by Sir William Osler, revised by Dr. Archibald Mallock.

Part Six, Diseases of the Locomotor System, by Dr. Steiner, McCrae, Dock and Emerson. The subjects presented and the authors who prepared the different chapters, gives sufficient assurance that the work has lost none of its value accorded to earlier editions.

EMERGENCIES OF A GENERAL PRACTICE

By the Late Nathan Clark Morse, A.B., M.D., F.A.C.S. Revised and Rewritten by Amos Colcord, M.D., Surgeon Carnegie Steel Company; Surgeon Pennsylvania Railroad Company, Etc. Second Edition. C. V. Mosby Company, 1927.

This is an attractive book on the emergency practice of a busy physician and surgeon who is liable to be called to all classes of cases. He may be called to see any kind of an accident case. If he is a surgeon of a railway company, or if he is a surgeon of a factory or machine shop, or any kind of industrial plant, he may find himself called upon to render emergency service at any moment. There are many other conditions which may arise where a

doctor's services are needed, so it occurs to Dr. Morse to prepare a book which sets forth what a doctor might meet and what he should do, either as a temporary or a permanent service. Since the automobile has become so common and runs on all highways, no doctor can long expect to escape being called upon to render emergency service. This will be found a useful aid to emergency practice.

A HEALTH STUDY OF TEN THOUSAND MALE INDUSTRIAL WORKERS

Statistical Analysis in Ten Industries.
United States Health Service, 1926.

The title of this pamphlet of 170 pages implies the purpose of this survey. The ten industries are specified. There are some interesting facts in relation to blood-pressure as to age and race. The average at twenty years of 376 persons examined, systolic 122, diastolic 71. At 60-61 years, 122 examined, average systolic 140, diastolic 86, and so on.

There is also a review of diseases and defects.

The growing interest in health examinations, in private life, industrials and in the transportation service, should add much to the value of these publications. These examinations were made by assistant surgeons in the Government Public Health Service recognized as competent medical officers.

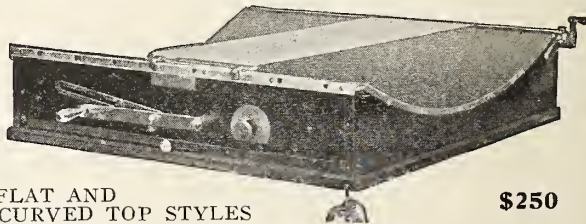
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The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, JUNE, 1928

No. 6

PRESIDENT'S ADDRESS*

MICHAEL J. KENEFICK, M.D., Algona

At the convening of this, the Seventy-seventh Annual Session of the Iowa State Medical Society, we congratulate ourselves upon our good fortune in being the guests of the Lynn County Medical Society. The committee on arrangements has left nothing undone which might contribute to the success of the meeting. We are fortunate indeed to have secured this beautiful temple as a meeting place.

On being called to preside, I regard the honor conferred as a recognition of the general practitioner who makes up the rank and file of the Iowa profession. At these annual meetings, we are accustomed to take stock of ourselves, and look for defects in our organization. This part of the program has been properly assigned to the House of Delegates; the general session concerns itself only with the program of scientific medicine.

What is wrong with the Iowa State Medical Society? First, our failure to get in the eligible non-members of the state. Our secretary informs me that the membership of the State Society to date is 2,175, approximately the same as last year. Regarding the eligible non-members, we wish to advise that we have no way of getting this list, as the county secretaries do not always send them in. We should not rest content to allow this membership to remain stationary, and until we can make a better showing than a membership of practically two-thirds of the practitioners in the state, we have failed in our duty to organized medicine.

A few years ago, at the suggestion of President Donald Macrae, there was organized a Field Activities Committee. It was claimed that our organization failed to function for more than one month in the year; that we failed in cooperation with the other public health activities. Un-

der the able leadership of Dr. Samson of Creston, this committee did valuable work in placing our profession in better light before the people of the state. Two years ago Dr. Bierring wrote the obituary of the Field Activities Committee, and recommended that the work begun by this committee be delegated to the councilors. For many years past, the councilors to whom are delegated the organization and revival of the interest in the county societies, have evidently failed to accomplish much with the county societies under their direction. The State Society functions as an integral part of the A. M. A. Councilors were assigned to congressional districts, the boundaries of which are arranged to suit the conveniences of the political party in power. The disadvantages of following the congressional districts are readily apparent when we observe the difficulties encountered in transportation by the councilor in his district. As an example, take the tenth congressional district, which comprises fourteen counties. It is asking too much of any councilor to visit the county societies in his district at least once a year. Another illustration, the third district extends from Dubuque county west half way across the state, and includes Hardin and Franklin counties. With the advent of the automobile and good roads, it seems that a better plan could be easily worked out for assigning fewer counties to each councilor. However, since the councilor districts are an integral part of the organization of the A. M. A., it would necessitate a radical change, so this question is respectfully referred to our delegates to the A. M. A.

THE COUNTY MEDICAL SOCIETY

The greatest problem in our organization is the county medical society. The counties having a membership of from twenty-five up have little difficulty in keeping up an interest in the organization. Counties having a membership of a dozen or so, experience has shown, cannot be kept active and alive. They fail for lack of interest on account of the small membership. In

*Delivered at the Seventy-Seventh Annual Session, Iowa State Medical Society, Cedar Rapids, Iowa, May 10, 1928.

many counties of the state at present the county society exists only on paper; the annual reports of the councilors will verify this statement. In some sections of the state, mergers of two counties have helped to solve the problem, and as this is the day of mergers in business, I would recommend that our councilors proceed to organize more mergers. In many instances, the physicians living at the county seat where the meetings are usually held are to blame for the lack of interest and failure of the county societies to function. In some localities recently the county societies have held union meetings, one county inviting the members from an adjoining county to furnish the program, and the other county reciprocating by putting on the next program. These meetings are usually held in the evening, following a six o'clock dinner at the place of meeting, and bring out an attendance sufficient to keep up an interest. This plan is suggested for the purpose of revival of interest in meetings of the county societies. A lack of interest in the county societies is responsible in a measure for the organization of district societies as a desire on the part of the progressive physicians for more light. The State Society, meeting once a year, does not give opportunity for the discussion of the many problems presented at these district meetings, which compare very favorably with the programs presented at our state meeting. I have in mind one of the more active district societies, the Austin Flint-Cedar Valley Medical Society, holding two meetings annually. This society has been in existence for more than a quarter of a century, and is still a going concern. It has not detracted from the interest in the county societies covering the same territory, namely the third and fourth congressional districts. Recently there has been organized the Twin Lakes District Medical Society, putting on a one-day program of very high class. This society is an outgrowth of the Calhoun County Medical Society. It is evident that these district societies have not killed off the county societies, as some have predicted; in fact they should stimulate interest in medical society meetings. Unless we can show a steady increase in membership from year to year, we have failed in organization.

MEDICAL EDUCATION

Medical education in this country has undergone rapid advancement within recent years. Real progress dates from 1907 when the A. M. A. began rating and classifying the medical colleges of this country. The report of the Carnegie Foundation for the Advancement of Teaching in 1910 contributed materially to the elevation of

standards in medical education. In the classification of medical colleges, the medical college of our Iowa State University early took rank among the class A schools.

Two years ago the people of Iowa accepted a gift of two and one-half million dollars from the Rockefeller Foundation, to be used in building and equipment for our medical college. Only one condition was exacted, namely, that the state should appropriate an equal amount. The medical laboratories are already completed and in operation. The new hospital will be ready by the opening of the next session. Doubts have been expressed, by the members of this Society, as to whether this new medical plant can be maintained in class A on account of the lack of clinical material. If the new school is to be a success, the physicians of Iowa represented in this Society must give their loyal support to the medical department and make an effort to supply the hospital with an abundance of clinical material from all over the state.

MEDICAL LEGISLATION

Our standing Committee on Public Policy and Legislation is one of the most important in the Society. Heretofore it has functioned during the sessions of the legislature, when some bill was presented in the interests of the cults and quackery, at which times committees were on the job and immediately sent out notices to the members of the Society to write or wire the representatives to oppose the pending bills. Members of the legislature are always disposed to look upon the members of the regular profession as favoring a monopoly in the treatment of the sick and injured. The cults and quacks were quick to take advantage of this sentiment and for this reason we have had very little influence with the members.

In our Journal for June, 1927, in an editorial on regulation of physicians by the law, the editor calls attention to an address by Mr. H. E. Kelley, of Chicago. The attention of every member of this Society is respectfully called to this editorial, and the address of Mr. Kelley. This address should not be buried in the files of our Medical Journal. The old question of medical legislation is so thoroughly and fairly discussed by Mr. Kelley that the logic of his conclusions must be accepted by every fair-minded person. Reprints of this address should be placed in the hands of every member of the legislature long before the opening of the session. These reprints could be best distributed through the county societies. I quote from Mr. Kelley's closing paragraph:

"The object of the state to provide a well trained profession, therefore, is doubly nullified by multiple standards and multiple boards, under which inferior standards receive the state's approval and are perpetuated from year to year by new cults, and continuous propaganda for dividing the practitioners of healing into warring groups, accentuating trivialities and preventing the direction of the power of the state upon the creation of a great profession under a single standard of efficiency for the benefit of the public health."

At the recent conference of County Secretaries and District Councilors held in Des Moines, Dr. Gray of Albia, secretary of the Councilors, presented a very able paper on the new Basic Science Law. This paper so ably and completely covered the ground that I will quote a few passages.

"Whether it is best for us to have many societies is not for us to say; it is for us to accept the situation as it is. The care of the sick, the prevention of disease, and the public health of the people means much to their welfare and happiness. This challenges the people to protect themselves; they can only get the protection they need and want by regulating all healers in the same way in regard to the essential requirements. There is a new program for regulating those professing the practice of healing. This program has been recently accepted by five states, Wisconsin, Connecticut, Minnesota, Washington and Nebraska. They have adopted the Basic Science Law. The Basic Sciences are specifically defined to mean and include all matters pertaining to anatomy, physiology, pathology, bacteriology, chemistry, hygiene and diagnosis of disease so far as the same pertains to the human system and mind as generally treated in each or all of said subjects. The day of the long-haired ignorant imposter is past; the things of the age are done by the educated, prepared and skilled in the sciences. There is no mystery about the art of healing. The aim, cause and diagnosis of disease of the human being are plain facts, open to all that will acquire the knowledge."

In the discussion of Dr. Gray's paper, Dr. Henry Albert, our efficient commissioner of the State Department of Health, gave as his opinion that it would be advisable to postpone the consideration of providing for a Basic Science Law for at least another two years, in order that we may learn from the experience of other states as to how it is working out. A campaign of education must precede any attempt at legislation. We must take the stand that we have nothing in view

except protection of the people against quackery and imposters; that we shall continue to labor in the future as we have in the past, for the best interests of public health.

MALPRACTICE AND MEDICAL DEFENSE

The report of the trustees of our State Society for last year showed a deficit of about \$6,000 between receipts and disbursements. It was very evident that if this state of affairs continued we would soon exhaust our reserve of \$25,000 and find our State Society bankrupt. It was further shown by the trustees' report that the big item of expense was for defending members against suits for malpractice. To meet this deficit and provide for future emergencies, the House of Delegates raised the annual dues from \$5 to \$7.

The standards of practice set up by the courts is that possessed and practiced by the average physician in the community in which the case is treated. Courts do not hold the practitioner of remote country districts to the same liability as the man who practices in the larger medical centers with access to hospital and laboratory facilities. The Iowa State Medical Society organized for defense of its members just twenty years ago at the suggestion of President Breckman. The first committee consisted of Drs. Emmett, Littig and Fairchild. Thirty-two of the forty-eight states now have some form of defense for members of the state societies. Since the organization of our medical defense, 266 cases have been brought against members; total amount of damages claimed in all cases up-to-date, \$3,035,597; judgments rendered against members, 11; aggregate amount of judgments, \$15,876. For detailed report of committee you are referred to the July, 1926, number of the Iowa State Journal. It is well to note that of the great variety of cases assigned, fractures constitute more than 50 per cent of all cases, with x-ray burns second. Therefore, exercise especial care in the treatment of fractures. The State Society is not conducting a collection agency; too often a doctor starts suit to collect a bill and the patient starts a counter claim. Always wait for two years before starting suit unless you are sure that the patient has no case for counter claim. The statute of limitation runs for two years, so that patient can counter claim at the expiration of this time only to the amount of his bill.

What are the causes for the instigation of suits for malpractice? First, a deadbeat looking for some easy money; second, the shyster lawyer, after the contingent fee, and third, sad to relate, the men in our own profession who make un-

favorable comments upon the work of a competitor. The doctor who seeks to build up a good reputation for himself by attempting to injure the reputation of neighbors should remember the old adage that "chickens come home to roost".

How can we best reduce the number of malpractice cases? First, by a little more cooperation among ourselves. Make no unfavorable comments upon results obtained by fellow practitioners. Second, since fractures are the occasion for the large majority of suits for malpractice, exercise the greatest precautions in treating fractures. Consider every case of fracture that you are called upon to treat as a potential case for malpractice, and begin then and there to plan your defense. Call consultation in all serious cases. Get a good x-ray of all fractures, before reduction, to aid in accurate diagnosis and after reduction to show results of treatment. The x-ray is now considered indispensable in the treatment of fractures. Remember that if you do not x-ray your fractures, someone else will do it, and here is where trouble often begins. Always give prognosis to patient in presence of consultants and reliable witnesses.

All open reductions and operative treatment of fractures should be done in a modern hospital by a surgeon. There is no longer any occasion for the general practitioner attempting this most difficult operative surgery in the patient's home.

Finally, remember that "eternal vigilance" must be your watchword in the successful treatment of fractures.

THE PHYSICIAN AND THE PHARMACOPEA

I consider the work of the Council on Chemistry and Pharmacy of the A. M. A. as the most important of the standing committees. Many physicians seem to have forgotten that there is a list of tried remedies sifted from the experience of the physicians of the United States for the past one hundred years, with the revision of the list every ten years by a board of pharmacologists and physicians. Physicians seem to think that the U. S. P. is a book compiled for the use of dispensing pharmacists only.

The last revision was the tenth, and this is the standard we are using at the present time. The object and scope of the Pharmacopea is "to provide standards for the drugs and medicines of therapeutic usages, used in medical practice throughout the United States and its possessions; to lay down a text for the identity and powers of these; to insure, so far as possible, uniformity in properties and active constituents". A copy of the latest edition of the U. S. P. should be found

in the library of every physician and should be frequently consulted.

It should have a great influence in getting physicians away from the prescribing of ready-made, shot-gun mixtures and proprietary drugs which are continuously being thrust upon the physicians. No salesman ever solicits physicians to buy or prescribe U. S. P. preparations, because there is no money in it. While the Pharmacopea is primarily intended for the use of the pharmacist, it should be consulted more frequently by the physician.

ALCOHOLIC LIQUORS IN PRACTICE

The tenth edition has restored whiskey as a therapeutic agent, which had been left out of the ninth edition. The A. M. A. conducted in 1922, a very interesting referendum on the use of alcohol in the practice of medicine. Questionnaires were sent to 53,900 physicians, representing 37 per cent of the physicians in the United States, and 31,115, or 58 per cent, were returned. Question 1, do you regard whiskey as a necessary therapeutic agent in the practice of medicine? 2. Do you regard beer as a necessary therapeutic agent in the practice of medicine? In the final report, giving summary of the inquiries, 24,494 expressed an opinion on the advisability of prescribing whiskey. Of this number, 44 per cent stated that they had found it advisable to prescribe whiskey, one or more times a month, while 56 per cent stated that they had not found it advisable to prescribe whiskey at any time. On the question of beer, 13 per cent found it advisable, while 87 per cent had not found it advisable to prescribe it. It will be noticed that on the advisability of using whiskey, the physicians of the country stand in the proportion of 44 per cent finding it advisable to 56 per cent not finding it advisable. Physicians of the United States are almost equally divided on the question of whether whiskey is a necessary therapeutic agent in the practice of medicine. It might be interesting to note that in Iowa, records for the office of prohibition administrator show that there are approximately 1800 M.D.'s holding permits required to be possessed under the National Prohibition Act. Of this number, 860 are authorized to prescribe intoxicating liquor, and 940 authorized to use liquor in their practice. Since July 1, 1927, only one physician was prosecuted for illegal sale of liquor, only a few permits were revoked during same period, and recommendations had been made that several revocations be instituted. This is from a recent communication from the deputy prohibition administrator for Iowa.

While the number holding permits included more than half of the physicians, the record for complying with the law makes a very good showing. This referendum may have had much to do with restoring alcohol as a therapeutic agent to the tenth revision of the U. S. P.

Much concern has been expressed in recent years about the scarcity of physicians in the rural communities. The automobile, good roads, and the small community hospital located at the county seat, will solve many of the problems of the country doctor.

THE CONTROL OF HEMORRHAGE FOLLOWING TONSILLECTOMY*

With Report of a Fatal Case

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About ten years ago a teacher in a post-graduate school of otolaryngology was asked what he would do to control hemorrhage following tonsillectomy. His answer was that he would stand the patient in a corner and allow him to bleed until he fell over, and that then the hemorrhage would cease. I am sure this reply would not be given today.

This anecdote serves to illustrate the change during the last decade in our estimate of the importance of tonsillar hemorrhage. Ten or twelve years ago, but scant attention was paid to bleeding after tonsillectomy. More or less oozing was taken as a matter of course.

Since the perfection of the ether suction apparatus, it has been possible to have better anesthesia and a perfectly clean operative field. There is little excuse now for allowing a patient to lose any considerable amount of blood and no need for undue haste. It is much better to take a little more time and see that all bleeding is stopped at the time of operation than to find, a few hours after the patient has come out of the anesthetic, that the job has not been finished.

The less blood lost from tonsillectomy, the better. In our hurry to complete a tonsil operation under local anesthesia on a nervous patient, we may overlook some bleeding point; then, when the vasoconstrictor action of the adrenalin wears off, hemorrhage may become quite severe. According to my own experience, reactionary hemorrhages are very much more common after local than general anesthetics.

Many physicians pay too little attention to the important detail of hemorrhage following tonsillectomy. In 1923 Dr. H. W. Loeb²⁷ of St. Louis, reported sixty-two deaths due to hemorrhage after the removal of tonsils and adenoids. Cox⁷ in 1925 extended Loeb's study and brought the figures up to a total of 261 cases of alarming tonsillar hemorrhage with a fatal outcome in 125 instances. Truly a startling array of figures! If all fatal cases were reported, this figure would probably be even higher. So it is apparent that the control of hemorrhage following tonsillectomy is a very important matter.

Some of the accidents reported in the literature are very instructive and deserve special mention. Therefore, I shall briefly summarize a few of these interesting cases.

Cowley⁶ in 1925 reported a case of severe tissue bleeding following tonsillectomy, which caused so much distention that intubation became necessary. The hemorrhage was finally controlled by blood transfusion. Yearsley⁴² in 1925 reported two cases of hemorrhage following tonsillectomy in which the bleeding was due to streptococcus infection. In one case the oozing began on the fifth day after operation. In both cases injections of antistreptococcus serum stopped the bleeding. Hemorrhage in these cases was due to the hemolytic organism, which rendered the clot soft and liable to crumble at the slightest touch. Dabney⁸ in 1919 reported a case in which secondary tonsillar hemorrhage occurred as late as ten days after the operation. A fulminating case of acute lymphatic leukemia was brought to Feinblatt's¹⁰ attention in 1924 after another physician had mistaken the condition for peritonsillar abscess and made an incision. Severe and persistent hemorrhage followed, which was temporarily controlled by blood transfusion, but the patient eventually died.

The cases cited in the preceding paragraph demonstrate the varied conditions that may give rise to hemorrhage following tonsillar operations and impress us with the need of avoiding routine and of exercising diligent care in every individual case. Otherwise, disaster will be inevitable in occasional instances.

REPORT OF CASE

I was unfortunate enough to have one accident following tonsillectomy. It is for this reason that I am presenting this paper in the hope that some points may be brought up which will prevent some of my colleagues from having a similar experience.

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927, Section Ophthalmology, Otolaryngology and Rhinology.

A boy, aged eleven, was first seen by me on the operating table. No preliminary examination had been made and the coagulation time had not been taken. At 8 a. m. the tonsils and adenoids were removed under ether anesthesia with the ether suction apparatus. There was very little hemorrhage at the time of operation and he was returned to bed, apparently in excellent condition, about twenty-five minutes after entering the operating room.

At 6:30 p. m. the nurse called me and said that the boy was having considerable hemorrhage. I learned later that he had been bleeding all afternoon and had vomited large quantities of blood. This fact, however, was not reported to me at the time.

The pulse was weak with a rate of 120. The hemorrhage was checked without much difficulty and saline infusion was started per rectum and continued most of the night. At 10 p. m. the patient's condition was quite satisfactory; the pulse was of fair volume with a rate of 110. The next report was at 6 a. m., when a special nurse notified me that the boy was unconscious! When I arrived at the hospital, he was dead.

From the family physician I later learned that the patient had a bad valvular heart lesion and also a bilateral chronic suppurative otitis media. I do not believe that these disturbances had much to do with the fatal outcome, which apparently resulted from hemorrhage pure and simple.

From this unfortunate case three important lessons are learned:

- (1) In every case a careful history and physical examination should precede tonsillectomy, and the bleeding and coagulation time should be determined.

- (2) The nurses should be instructed as to the constant danger of hemorrhage after removal of the tonsils, and they should report promptly any bleeding that continues more than two or three hours after operation. If hemorrhage is profuse, they should report it within the first two or three hours.

- (3) Nurses should be taught to keep the patient after tonsillectomy either in the prone position or on his side; for, if he lies on his back, the blood may trickle down his throat and be swallowed, with the result that the hemorrhage will be overlooked until the patient vomits the blood some time later.

DISCUSSION

Since ear, nose and throat specialists probably perform tonsillectomy three times as frequently as any other surgical procedure and in many hospitals most of the operations are of this nature, it is very important to make this operation as safe as possible. The methods of performing tonsillectomy are extremely varied; but we are

all striving to accomplish the same result, namely to remove the tonsils with as little trauma, hemorrhage and discomfort as possible. Some authors speak of a "bloodless operation"; so far I have not been so fortunate.

POINTS IN ANATOMY

It will be recalled that the blood supply of the tonsil comes chiefly from the tonsillar and ascending palatine branches of the facial artery. Usually the greater number of branches come from the tonsillar. These branches enter the tonsil in its lower half. The descending palatine branch of the internal maxillary artery gives off a twig which enters the superior lobe of the tonsil and anastomoses with the ascending palatine. The dorsal lingual artery supplies the anterior pillar of the fauces and sends some branches to the tonsil; these tributaries, however, rarely cause troublesome bleeding. A branch from the ascending pharyngeal artery enters the tonsil below and posteriorly through the posterior pillar.

Troublesome hemorrhage arises most frequently from the vessels that enter deep in the tonsillar fossa; namely, the tonsillar and ascending palatine arteries.

The tonsil possesses a venous plexus, which communicates with the veins of the pharynx. According to Fetterolf, the largest vein runs down the outer edge of the palatopharyngeus muscle and unites with veins from the epiglottis and the base of the tongue to form a large trunk, which empties into the pharyngeal plexus. A smaller vein runs down the anterior sinus wall and empties into the lingual veins.

IMPORTANCE OF HISTORY

With regard to a tendency to free bleeding, the family history may be important. If we inquire carefully with regard to the ancestry, we shall not make the mistake of operating in true hemophilia. This condition, it will be recalled, is limited to the male; but it is transmitted through the mother, in whom the defect remains recessive. Hemophilia has aptly been called the most hereditary of all hereditary diseases. While rare, it is exceedingly important, because of the almost complete lack of coagulating power and the tragic consequences that follow any surgical procedures.

Much more common than hemophilia is a delay in the coagulation time, a condition that may occur in either sex. This disturbance, too, may lead to serious consequences. I believe that the coagulation time should be determined before every tonsillectomy. If it is prolonged beyond

five minutes on repeated examinations, I make it a rule to employ some means of increasing the coagulability of the blood.

Many drugs are available to improve the clotting power of the blood. Among them we may mention calcium lactate, fibrogen and hemoplas-tin. A single transfusion of blood is a most effective means.

Higgins and Fisher¹⁷ have recently reported favorably on the use of intramuscular injections of sodium citrate to improve blood coagulability. We must remember that, while relatively large amounts of sodium citrate prevent clotting and a 0.2 per cent solution is used as an anticoagulant in performing blood transfusion, a very small dosage has the reverse effect. In their series of twenty-five cases, Higgins and Fisher found that, when the coagulation time was retarded from one to three hours, intramuscular injections of sodium citrate caused a gradual return to normal within twenty-four to forty-eight hours. They proved of clinical value as a means of lessening bleeding and shortening the coagulation time in conditions such as jaundice, wherein clotting is retarded. However, when the disturbance is due to a reduction of the blood platelets as in purpura hemorrhagica and pernicious anemia or to hemophilia, the citrate is of no value.

The treatment is given as follows: Under novocain anesthesia, 15 c.c. of a 30 per cent solution of pure sodium citrate, sterilized by boiling, is injected deep into each buttock. The method is apparently free from danger. There were no untoward results in more than fifty cases. The maximum effect is reached in about forty-five minutes.

Very many different methods are used to control hemorrhage following tonsillectomy. Bailey² reports forty different methods used by 350 surgeons. A few of these methods are as follows: pressure, hemostats, ligature, sutures, suturing the pillars, and the application of tannic acid, turpentine, alum, Monsel's solution and many other agents.

Smital³⁶ in 1925, after experimenting on cadavers, devised the following method of ligating the tonsillar artery in the field of operation: The tonsil is shelled out from its capsule so as to leave only a cord about 1 cm. wide, which contains the tonsillar artery. This pedicle is clamped close to the tonsil. With a curved needle-holder, fine strong silk is quilted around this pedicle and tied tight. The tonsil is removed and the upper part of the pedicle is then held out with curved artery forceps (not including the tonsillar artery), and the suture is cut. If bleeding follows,

traction on the forceps stretches the pedicle and discloses the bleeding point. Specially constructed forceps were devised by Popper³⁴, to be used as a ligature carrier when a vessel in the tonsillar fossa needs to be ligated.

Greene¹³ makes use of the tonsil itself as an instrument for controlling hemorrhage during the operation. His theory is that the tissue juices of the tonsil constitute an effective physiological agent for controlling hemorrhage. His technic is to seize the tonsil with forceps and carefully dissect the upper third. If there are any bleeding points, the tonsil is immediately pushed back into the fossa and held firmly until bleeding is controlled. After the upper part of the tonsil has been sufficiently dissected, the wire loop is slipped over the tonsil and its removal is accomplished by slow action of the snare. The last and most important step in the operation is to hold the tonsil after its complete severance firmly and accurately in its fossa for a period of about two minutes.

As a means of controlling tonsillar hemorrhage or preventing its occurrence in predisposed individuals, the value of blood transfusion is unquestioned. Feinblatt¹¹, in his recent monograph, "Transfusion of Blood", states: "So far as the control of hemorrhage is concerned, blood transfusion appears to be uniformly beneficial no matter what the origin of the bleeding." Present-day methods of performing blood transfusion are quite simple, and we should avail ourselves of this means of preventing and stopping tonsillar hemorrhage more frequently.

The most satisfactory technic in my hands has been as follows: The bleeding point is picked up with forceps. Then, by the use of a needle, a No. 0 catgut suture is passed around it and tied. By this means it is very easy to control tonsillar hemorrhage; and, once you have done so, you enjoy a sense of security that no other method can give. The suture cannot slip off and the patient has very little discomfort due to its presence.

Transfusion of blood should always be resorted to in case of serious hemorrhage. The Lewisohn citrate method and the very simple and safe syringe method of transfusion recently devised by Feinblatt may be easily learned by the average worker. Every hospital should be equipped to give blood transfusions at short notice.

When hemorrhage is due to adenoidectomy, the use of the postnasal tampon has, in my experience, given the most satisfactory results.

CONCLUSIONS

1. Tonsillectomy is not so free from danger as many of us have been led to believe. Unless we exercise reasonable precautions, there will be an occasional fatality from hemorrhage.
2. A careful history and physical examination and a preliminary determination of the coagulation time represent the minimum of preoperative study.
3. Nurses should be instructed to report hemorrhage following tonsillectomy promptly, and the patient should never be allowed to lie on his back as hemorrhage may then escape recognition.
4. Before the patient is removed from the operating room, the surgeon should be certain that all bleeding points have been stopped.
5. Preliminary injections of sodium citrate are useful to reduce the coagulation time to normal. As a means of stopping hemorrhage, a transfusion of blood is of very great value.

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THE DIAGNOSIS AND TREATMENT OF ACUTE MASTOIDITIS*

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At first thought it might appear that the diagnosis of acute mastoiditis were too simple a matter to call for discussion before this society.

However the number of serious complications, meningitis, cerebral abscess, sinus thrombosis, with and without general sepsis, and chronic running ears, coming to our attention leads to the belief that either there occurs frequent failure of diagnosis or there exists a woeful lack of appreciation of the necessity of early operative interference when a diagnosis of mastoiditis has been made.

It may be said that in all but the exceptional cases, serious complications following mastoid infection are due either to a failure of diagnosis

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927, Section Ophthalmology, Otology and Rhino-Laryngology.

or neglect to resort to prompt and efficient treatment. It would seem therefor that the subject is one worthy of some consideration.

The presence of an acute infective process within the mastoid process is indicated by a number of signs and symptoms of more or less constancy. In order of their frequency and importance these may be noted as follows:

1. Tenderness upon pressure.
2. Sagging of the posterior-superior wall of the external canal.
3. Suppuration within the tympanic cavity.
4. Pain.
5. Leucocytosis.
6. Fever.
7. Shadow on transillumination and x-ray.
8. Edema of soft tissues.
9. Discharge—character.

Tenderness—This is the most constant and the most dependable of all the diagnostic signs of mastoiditis. It should be distinguished from that tenderness which occurs in external otitis and furunculosis of the canal and also from the more or less superficial tenderness that sometimes occurs early in suppurative otitis media and which promptly disappears upon paracentesis or spontaneous rupture of the drum membrane.

This early tenderness has been considered to indicate a beginning mastoiditis and this conception has given rise to the impression that mastoiditis can be aborted by early antiphlogistic measures. Little opportunity is afforded to view the pathology of this condition but those which have been brought into view by an early operation have usually presented no pathologic alteration aside from slight periostitis.

Experience will lead one to differentiate this tenderness by its superficial nature and its location from the tenderness present in true mastoiditis. It is probably an extension of middle ear tenderness along the periostium of the external canal which being continuous with that of the mastoid process gives rise to the same superficial tenderness upon pressure as occurs in otitis externa or furunculosis.

The points of tenderness which may be considered diagnostic of acute mastoid infection are four in number and are located, first, over the mastoid antrum in what is termed the mastoid fossa. Second, over the tip of the process the location of the large tip cell of the mastoid process. Third, at the posterior border of the process over the point of emergence of the mastoid emissary vein. Fourth, tenderness over the posterior extension of the root of the zygoma. Tenderness in this location occurs only in those mas-

toids where there is present a development of cells in the backward extension of the zygomatic process. Failure to take account of these cells is a frequent cause of failure of the mastoid operation.

Careful study of tenderness upon pressure over the above mentioned locations will come nearer establishing a diagnosis of acute mastoiditis than any other symptom or group of symptoms. If there be added the presence of sagging of the posterior superior wall of the external canal upon inspection a diagnosis may be made almost with certainty. The pain elicited by pressure over these points is greatest in the early hyperemic stage, becoming less severe upon the breaking down of the intervening cell walls and again becoming more prominent as the diseased process approaches the surface of the bone.

Sagging or drooping of the posterosuperior canal wall is practically a constant accompaniment of disease within the mastoid process. In an early stage bulging of the tympanic membrane before rupture or paracentesis may cause confusion in establishing this sagging but a careful examination with a well focused light will usually determine this point.

Suppuration within the middle ear though usually present may be absent and the drum membrane present a normal appearance. The examiner should not be misled by such findings because primary mastoiditis so-called occurs more frequently than is usually believed. Unquestionably infection may pass directly through a large aditus and become active in the antrum and mastoid cells. In some instances without doubt the middle ear becomes infected secondarily to the antrum and the processes proceed hand in hand. It is also likely that in many patients with very low vitality and lessened resistance the infection may reach the bone by way of the circulation.

Owing to local conditions the infection of the middle ear may subside while that in the mastoid may go on to a destructive inflammation. So too there may be an elective preference of the infective organism for the mastoid tissues. All are familiar with the prevalence of mastoid infections in certain epidemics of influenza, scarlet fever and measles and the absence of such complications in other epidemics of just as virulent form wherein it may be the nasal sinuses, the glands or pulmonary tissues that bear the brunt of complications.

The presence or absence therefor of suppuration of the middle ear, its bacteriologic character, its quantity, or its physical characteristics are of

little moment in diagnosis. A profuse discharge does indicate an antrum infection but an infected antrum does not necessarily denote a mastoiditis. With an aditus of sufficient calibre a suppurating antrum may and frequently does drain itself by way of the middle ear and external canal without infection of the bone or the presence of symptoms of acute mastoiditis.

Pain—Pain is of importance in reaching a diagnosis especially if it occurs in the presence of free drainage from the middle ear. It is of indefinite location being referred to the depths of the ear, behind the ear, and over the side of the head.

It is most intense at night and is aggravated by interference with drainage from the middle ear. It is unusual to observe a case of mastoiditis in which sleep is not disturbed by pain.

Nocturnal exacerbations of pain is noteworthy. Pain varies with the amount of destruction taking place within the bone, being lessened by the breaking down of the cell walls, or perforation of the cortex with the relief of pressure afforded thereby. Perforation of the inner plate is often followed by temporary relief of pain only to give way to more or less excruciating headache.

Blood Count—Leucocytosis is usually present with high polynuclear count. In mastoiditis complicating measles the leukopenia present in that disease may persist thus distorting the blood picture.

Fever—An elevation of temperature of varying degree is always present at the outset of mastoiditis. Later this symptom becomes variable and of little diagnostic value. It is not unusual to observe instances of wide destruction of the mastoid cells presenting a normal temperature.

Kerrison states "Absence of fever is no indication that the mastoid cells are not extensively involved. An evening elevation of temperature with a normal morning temperature may exist but as a diagnostic measure it may well be ignored. When present it may be a manifestation of the causative disorder, measles, influenza, nose or throat infection, and may bear no relation to the condition within the mastoid process.

Transillumination and X-ray—A small electric light inserted deep in the external canal may by comparison with the healthy side furnish confirmatory evidence of value. The varying texture and conformation of different mastoids renders the evidence deduced problematic. The same may be said of the x-ray findings though repeated exposures from day to day will often demonstrate the progress of the disease within the mastoid.

Post Auricular Edema—Edema and tumefaction of the tissues over the mastoid is excellent evidence of mastoiditis in the absence of furunculosis of the canal.

It is also indisputable evidence of neglect. No mastoid infection need or should be permitted to reach the point where tumefaction and edema is present without a diagnosis and operative treatment having been instituted.

Treatment—No detailed exposition of the mastoid operation will be undertaken here. Certain points in technic, however, should be stressed as making for a successful operation with minimum discomfort and disability to the subject. Whatever method of opening the mastoid is used, whether mallet and chisel, curette and bone forceps or electric bur, exenteration of the cells should be complete, proper respect being paid the location of the sinus facial nerve and tegmen, likewise the semicircular canals.

The practice of some operators, more prevalent among general surgeons who attempt the mastoid operation of simply opening the antrum and leaving the infected cells to break down and discharge through that channel must be condemned as nothing short of reprehensible bungling.

The postzygomatic cells should be investigated and cleared out if infected. The aditus should be enlarged to permit through and through drainage via the middle ear, a thorough paracentesis having been done on the tympanic membrane.

Irrigation is not favored in some quarters, but douching of the completed wound with some of the newer antiseptics, acriflavin, mercurochrome or metaphen flushes out spicules of bone and debris, which might otherwise be overlooked and is of value in promoting a clean healthy wound.

The older method of packing the wound tightly with gauze and allowing the wound to heal slowly from the bottom out has given way to the blood clot dressing or the modified blood clot with drainage from the lower angle of the wound, the balance of the incision being closed with metal skin clips which are more easily removed and less likely to cause skin abscess than through and through sutures.

The newer methods of dressing give a much better cosmetic result and after dressings are no longer the nightmare they formerly were. A strip of parawax lace mesh placed next the incision prevents the gauze adhering to the wound edges, causing pain when changing dressings.

Small sponges are finally laid upon the wound and the whole covered with a gauze pack held in place by a circular bandage.

THE APPLICATION OF PROTEIN THERAPY IN AFFECTIONS OF THE EYE*

A. B. FAIR, PH.B., M.D., Ottumwa

During the past ten years this subject has been discussed pro and con in our literature by many of our foremost clinicians in this country and abroad, and for that reason I offer no apology in presenting to this society a subject in which I am intensely interested and which I anticipate that you all are, but with varied ideas, and methods of treatment, all of which will provoke a liberal discussion which will be beneficial to us all.

Through empiricism, medical research and by actual experiment in the laboratory, we have arrived at that point where there is no longer any doubt that the positive reaction to protein injection is a valuable therapeutic measure.

There is considerable debate however, as to the relative value of the different forms of protein.

A great variety of therapeutic agents have been used and likewise there is a variety of results due to the problem of dosage and the timing of the injection. The lack of uniformity of the protein agent employed, no doubt accounts for the wide variations in results. The protein agents that have been most universally used in ophthalmology, are sterilized milk, normal horse serum, antidiphtheritic serum, Yatren-casein, cibalbumen albumiose, proteose non-specific vaccines and preparations of milk such as aolan, lactogen and others too numerous to mention.

The intramuscular injection of milk was introduced by Schmidt and Saxl, about the year 1915, and its use was confined mostly to local inflammations, especially to the anterior portion of the globe. Its favorable use in these conditions having been used in thousands of cases by such men as Bargy Riech Mans, Marin Amat, in the treatment of every inflammatory condition of the anterior part of the globe, led to its use in later years, in the treatment of posterior eye lesions, and reports from such men as Heine, Perez Rufil Fradkine, Enoique Avalos, Nicolich and others claim that great results have been obtained in retinitis, optic neuritis, edema of the papilla and tuberculous choroiditis, sympathetic ophthalmia, recent and progressive choroiditis and cyclitis.

Horney in the Medical Journal of Australia, advocates highly the use of cow's milk in the

treatment of gonorrhoeal ophthalmia, in the infant and adult. A new-born infant receives 2 cubic centimeters, a child six years of age receives 5 cubic centimeters, a child eight to ten years of age 10 cubic centimeters, while adults may receive 15 cubic centimeters.

Milk injections are used with great efficiency in perforating wounds of the globe, and the same author claims that its routine use will eliminate sympathetic ophthalmia. He also claims that in a large continental clinic, no case of sympathetic ophthalmia has been observed for two years since this line of treatment has been followed.

It was early recognized that only those protein agents were effective therapeutically which were capable of producing a general systemic reaction, yet in the light of this many of our manufacturers of different modifications of milk claim superiority for their products on the ground that they do not produce this reaction. The systemic reaction produced is usually evidenced by a slight chill, a slight rise of temperature, sweating, some nausea, some nervous irritability, and leucocytosis.

The usual mode of preparation of cows' milk is to boil it for about four minutes and cooled to the temperature of the body and injected usually into the muscle. Some clinicians use it subcutaneously, but I find that the intramuscular injection is usually preferred. It is administered with comparative safety and with little inconvenience to the patient other than a slight soreness at the point of injection, lasting a few hours.

Since the accuracy of dosage is a very important factor in protein therapy, and on account of the fact that numerous observers have noted that the reaction to milk injections often varies considerably in different localities, and also in the same locality, with milk from different sources, Darier and others have recommended the use of antidiphtheritic serum. The dosage of the serum is certainly more definite and its anaphylactic effects are more clearly understood.

Ben Witt Key of New York, has by clinical and laboratory experience, proven to his own satisfaction that it is a safe and valuable method in the inflammatory conditions of the eye, and out of 144 cases mentioned, he has not observed any serious anaphylactic effects. The effect of the serum is manifest within twenty-four to forty-eight hours after the injection. The average dose being employed is about 3200 units, although the dose may vary between 2000 and 5000 units, varying with the age and weight of the patient. The injections should be made intramuscular. The dose is repeated or modified in forty-eight hours, depending upon the reaction

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927, Section Ophthalmology, Otology and Rhino-Laryngology.

observed after the previous injection. This can be continued for several doses without fear of anaphylactic symptoms.

The probable mode of action is by a general cellular stimulation glandular muscular nervous and osseous, and by a local permeability of tissue and capillaries thus increasing the local lymphagogue action.

While my experience has been quite limited. I must confess that in the treatment of serpiginous ulcers and other inflammatory conditions, there has been relief from pain, a cleaning of the ulcer, a removal of hypopyon when present, which at different times has seemed miraculous. In idiopathic iritis when the focus of infection cannot be found, the serum has been used with remarkable success.

The success I have attained in the use of the serum may have made me over enthusiastic, but I am firmly convinced that it is worthy of a trial in these conditions supplementary to the usual line of treatment.

I feel too, that the pendulum may swing too far one way or the other in the use of therapeutic agents, yet we have to weigh them in the balance, sift out the good and apply it in a manner that we know will benefit the pathology in question.

HEMACHROMATOSIS TREATED WITH INSULIN*

E. B. WINNETT, M.D., Des Moines

Trousseau in 1857 when describing a patient with diabetes mellitus said, "I was struck with the almost bronzed appearance of his countenance and the blackish color of the penis".

Von Recklinghausen in 1889 wrote of a very rare condition in which he found a deposition of pigment in the skin and other organs of the body with a cirrhosis of the liver and pancreas. This condition in its later stage was usually, but not always associated with diabetes-mellitus. To this group of findings most always occurring in the male (only one case reported as occurring in the female), he gave the name hemachromatosis. The name hemachromatosis was later changed by the French to bronzed diabetes.

An idea of the infrequency of the disease is evidenced by the fact that up to October, 1925, only ninety-one cases had been reported in the literature.

There is a wide variety of opinion as to the

etiology. Some hold that the disease is due to an agent in the blood stream which causes the red blood cells to part with their hemoglobin. The iron content of the hemoglobin finds its way in uneven distribution to the skin, liver, pancreas, and other organs of the body. Others think that the disease is a primary cirrhosis of the liver with a secondary fibrosis of the pancreas. Eppinger suggests that hemachromatosis is a disease of the reticuloendothelial system, whereby, the capacity to prepare hemoglobin properly for reconstruction is impaired.

In hemachromatosis there is an enormous retention of iron. In one case reported, the liver alone was found to contain as much iron as is found in the entire normal body.

Granting that food is the only source of iron, Muir and Dunn estimate that if the whole amount of iron taken into the body with food was retained, it would take three years to accumulate as much as is stored in the liver alone in this disease.

C. P. Howard in 1917 weighed the amount of iron taken in the body with food and weighed the amount of iron excreted. He found that there was a definite retention of iron in a patient with hemachromatosis. At that time he stated that there was a wide variety of opinion and a great deal of confusion in the literature as to the hemolytic agent which caused the red blood cells to give up their iron. Certainly there is no striking change in the blood stream.

F. B. Mallory in 1925, while experimenting with rabbits trying to find the cause of alcoholic cirrhosis of the liver found that he could produce a pigmentation of the skin and a cirrhosis of the liver by feeding these animals copper. He found that the pigmentation of the skin was first hemofucin which later changed to hemosiderin. The cell changes in the liver were the same as those found in the pancreas. Comparing these changes in the animal to the human, we could explain the changes in the human by stating that we have a person who is susceptible and is exposed to copper from any source over a period of years. Copper causes a hemolysis and the red blood cells give up their iron, then a deposit of hemofucin, this later changes to hemosiderin which causes a necrosis, necrosis starts a regeneration and so on until the patient dies from the process or some intercurrent disease.

To sum up the pathology, we may say that there is first a retention of iron and a deposit of hemofucin in uneven distribution in all of the parenchymatous cells of the body.

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

Hemofucin through metabolic activity changes to hemosiderin, then a necrosis and a regeneration of some of the cells especially in the liver and pancreas. The final result is a condensation of the stroma and a sclerosis of the liver and pancreas with the resulting symptoms - ascites, jaundice and diabetes.

Diabetes is one of the late manifestations, and may not develop at all, because the patient may die with the disease, or some intercurrent disease first. The reason diabetes is a late manifestation is that diabetes cannot develop until the sclerosis has progressed far enough to destroy or impair the function of the islander cells. The function of the islander cells is to produce insulin, which in turn is taken up by the blood stream and cause the food we eat to burn. When food does not burn, then glucose accumulates in the blood stream and is carried to the kidneys where it is excreted.

According to Mallory, we are gradually accumulating evidence to prove that hemachromatosis is due to copper. Copper in the food we eat. Copper in the dust inhaled. Copper from copper whiskey stills, copper from cooking utensils and copper from many other sources. Copper causes hemolysis of the red blood cells, sets free hemoglobin, part of which is eliminated by the kidneys, but the excess is deposited in a changed condition as hemofucin. The hemofucin is not a copper compound with hemoglobin but is an intermediate product between hemoglobin and hemosiderin. This may be demonstrated by injecting into an animal hemoglobin and then finding hemofucin in the liver of the animal.

Hemachromatosis must be differentiated from other diseases in which there is a cirrhosis of the liver. It must be differentiated from alcoholic cirrhosis, from syphilitic cirrhosis, from toxic cirrhosis due to arsenic, phosphorous and chloroform, from biliary cirrhosis and ascending infections of the bile ducts by the colon bacillus.

The diagnosis of hemachromatosis is made by finding in persons usually past thirty years of age, a large liver, a pigmentation of the skin and diabetes mellitus. The pigmentation of the skin is a great aid in making the diagnosis antemortem. A piece of skin may be excised and examined for hemosiderin by adding to it a drop of a solution of potassium ferrocyanide and a drop of hydrochloric acid. This procedure gives a definite prussian blue color to the excised skin.

The symptoms of hemachromatosis may set in abruptly. The patient feeling perfectly well today and in twenty-four hours being in a state of severe illness. The onset may be with dyspnea

due to the ascites and the large liver. They may begin with the symptoms of diabetes, that is, hunger, thirst, and polyuria. The first symptoms may set in after an upper respiratory infection, or after an attack of influenza. Usually, however, the symptoms develop slowly. The patient or his friends notice a peculiar slaty bluish color to the hands or face. The patient is tired, "has no pep", loses weight and has no strength. The abdomen begins to enlarge slowly, due to the increasing size of the liver and the ascites. Edema develops in the ankles and legs. The temperature remains normal while the pulse is slightly accelerated. Weakness is progressive, and at last the patient goes to bed too tired to be up and about. At this stage diabetes usually develops with polyuria, polydipsia and polyphagia. When it does develop, it is severe and dominates the picture. The pigmentation of the skin varies, ranging from a brownish to a bluish black, sometimes there is a metallic luster. The distribution is upon the face, hands, arms to the elbows and about the nipples. Some patients have a very marked discoloration while in others it is slight. The blood count shows no abnormality.

The course of the disease is from a few months to two years, and treatment, except for the relief of the ascites and the diabetes, is unavailing. The diabetes, while severe, may be controlled with insulin as in other severe diabetics.

I wish to report two cases of hemachromatosis. Both were referred because of diabetes. Both were treated with insulin. Both are dead. Autopsies were performed by Dr. Julius Weingart, Des Moines, Iowa. Pathological sections were made by Dr. Ralph R. Simmons, Des Moines, Iowa. No connection with copper was thought of in either of these patients because at the time of these deaths, nothing had been referred to in the literature as a possible connection between copper and hemachromatosis.

Case No. 1. Hugh, J. S. A white male, age thirty-six years. Married. Drug salesman. Entrance complaint.—Continuous pain in the abdomen, progressive weakness, loss of weight, and swelling of the legs.

His father died of uremia. His mother died of apoplexy. He had five sisters and one brother alive and well. No history of cancer. No tuberculosis or diabetes in the family.

During March, 1924, he had to quit work on account of general weakness. At this time he began to lose weight rapidly. His appetite was poor and what he did eat he had to force down. During the next few months he was examined by several doctors and had many urine examinations made. All were reported normal. During the summer of 1924

Name—H. D. S.

CHART NO. 1

Name—H. D. S.							Sugar-Diet in Gram			Insulin	
Date	24 hr. Am't	Spec. Grav.	Alb.	Acet.	Dia.	%	C.	P.	Fats	Wgt.	Units
5-13	single	1012	0	plus	0	.9	General Diet			110	0
5-14	800	1018	0	plus	0	.5	75	50	138	111	3- 3- 3 U20ac
5-15	1000	1003	0	0	0	0	75	50	150	103	2- 2- 2 U20ac
5-16	1500	1005	0	plus	0	tra	85	50	170	102	3- 2- 3 U20ac
5-17	825	1001	0	0	0	0	90	50	175	101	3- 3- 3 U20ac
5-18	450	1016	0	0	0	.4	90	55	185	101	4- 4- 4 U20ac
5-19	2100	1017	0	0	0	1.3	90	55	185	102	5- 5- 5 U20ac
5-20	1450	1010	0	0	0	.2	90	55	185	102	7- 7- 7 U20ac
5-21	1000	1018	plus	plus	0	2.4	90	55	185	106	10-10-10 U20ac
5-22	500	1022	plus	plus	0	2.7	90	55	185	107	13-13-13 U20ac
5-23	900	1015	plus	0	0	3.8	80	55	185	109	15-15-15 U20ac
5-24	785	1016	plus	0	0	3.2	70	55	165	111	15-15-15 U20ac
5-25	2100	1030	plus	0	0	1.7	60	55	165	112	15-15-15 U20ac
5-26	400	1022	.2	0	0	0	50	55	150	114	10-10-10 U20ac
5-27	150	1020	plus	0	0	0	50	55	150	115	7- 7- 7 U20ac
5-28	200	1015	plus	0	0	0	50	55	150	115	7- 3- 7 U20ac
5-29	500	1015	0	0	0	0	55	55	150	115	7- 3- 7 U20ac
5-30	?	1012	plus	0	0	0	55	55	170	115	7- 3- 3 U20ac
5-31	?	1000	0	0	0	0	?	?	?	?	4- 3- 0 U20ac

he had trouble with severe abdominal cramps, loss of weight and strength continued. During January, 1925, he had two ulcerated teeth removed in the hope of removing the cause of his trouble. He was in the dentist's chair two hours and the jaw did not heal for some time. He thought the extraction made him feel worse rather than better. The latter part of February, 1925, a diagnosis of tuberculosis was made, and he was sent to a sanatorium where sugar was discovered in the urine. Since that time he has been on a diabetic diet. Almost daily a urine examination has been made, sugar has been found at each examination since. He sleeps poorly. Has alternate diarrhea and constipation. No headache. No genito-urinary symptoms. Has cramps in the abdomen and legs nearly every day. January, 1925, he weighed 140 pounds. He now weighs 111 pounds.

Physical examination.—An emaciated white male, in bed, without apparent discomfort. His face and hands are of a bluish slaty color. Head is negative. Pupils are equal and react to light and accommodation. Nose and ears are negative. The second right molar is decayed. No enlarged glands. The chest is barrel-shaped with prominence of the ribs and sternum.

The lungs expand equal. Resonance normal. No rales or untoward signs. The heart was not enlarged. Tones clear and regular. No murmur. The abdomen was distended. A large mass which extends diagonally across the abdomen could be palpated. The mass extended four fingers below the costal margin, was not tender, was smooth, the edges could be easily felt. Mass moves with respiration.

The genitals and rectum were normal. The extremities showed some edema about the ankles. The blood, Hgb. 75 per cent; R.B.C., 4,470,000; W.B.C., 7,900; lymph, 49 per cent; poly, 51 per cent. The stool normal. The Wassermann was negative. Blood sugar, 25 per cent. Urine, Sp. Gr., 1012; acid; albumen, none; sugar, 9 per cent; acetone, trace;

diacetic acid, none. Microscopical—No blood, casts or pus. Blood-pressure—Systolic, 80; diastolic, 50. Temperature, 98.3; pulse, 100; respirations, 20.

Daily progress notes.—Entrance May 13, 1925. The size of the liver remained unchanged. The spleen was never palpable. The discoloration became more marked. The patient gradually became weaker. Developed a harsh cough. Rales in the base of both lungs, an ascites developed rapidly. Morphine was necessary to relieve the abdominal pain. On May 30, 1925, he became much weaker, refused food, was irrational and died on May 31, 1925. Chart No. 1 is his diabetic chart, showing the food intake, urine output, weight and insulin used.

Autopsy, Case No. 1.—The body was that of a much emaciated white male, appearing much older than the stated age. The skin on the hands, arms to the elbows and on the face was of a dark bluish leaden color. There was some evidence of edema of the legs. The thoracic cavity showed no abnormality with the lungs except anthracosis. The heart was normal in size. The valves were normal. There was no evidence of disease of the pericardium. The aorta was normal macroscopically. There was no pigmentation of the muscles. On opening the abdomen little fat was found in the mesentary or otherwise. The abdominal muscles were atrophied. There was some ascites in the peritoneal cavity. Many adhesions were found about the stomach as well as the gall-bladder, which was adherent to the transverse colon. The liver was uniformly enlarged, cirrhotic, pale brown in color and extended three fingers below the costal margin in the mammary line. No adhesions were found between the liver and the diaphragm. The gall-bladder was free from stones, was filled with bile, its walls were not thickened and it appeared normal. The pancreas was buried in a mass of dense adhesions and was smaller than the normal. Its color was a dark brown or rusty. It could not be removed intact on account of the firm adhesions. The spleen was about twice the

Name—Fred, C. L.

CHART NO. 2

Date	24 hr. Amt.	Spec. Grav.	Alb.	Acet.	Dia.	%	Sugar-Diet in Grams			B. S.	Insulin Units
							C.	P.	Fats		
9-17	single	1030	tr.	tr.	0	0	70	60	110	.280	15-15-15
9-18	355	1024	0	tr.	0	.71	70	60	110	----	15-15-15
9-19	340	1031	0	tr.	0	1.25	70	60	110	----	15-17-18
9-20	350	1030	0	tr.	0	.5	70	60	110	----	18-17-20
9-21	1000	1034	0	tr.	0	1.4	70	60	110	----	20-20-20
9-22	240	1032	0	0	0	1.1	70	60	110	----	21-21-21
9-23	900	1034	0	0	0	.9	70	60	110	----	21-21-21
9-24	600	1033	0	0	0	1.1	70	60	110	----	21-21-21

Patient left the hospital without permission, said he was going to eat what he wanted.

size of the normal, was of a bluish color and was free from adhesions. The kidneys were normal in size and color and the capsule peeled easily. The adrenals were not examined. The bladder was filled with urine, was free from stones and appeared normal. The genitals were normal. Sections of the spleen, liver, pancreas and other organs when treated with a solution of potassium ferrocyanide and a drop of hydrochloric acid showed a deep blue discoloration.

Anatomical diagnosis—Hemachromatosis. Cirrhosis of the liver. Fibrosis of the pancreas.

Case No. 2. Fred, C. L. A white male, age forty-three years. Single. Brakeman on the interurban. Entered the Des Moines City Hospital on September 17, 1924, on account of pain in the upper abdomen, progressive weakness and loss of weight. His father was dead of unknown cause. His mother died of "sleeping sickness". His family history was negative for diabetes, cancer and tuberculosis. He had always been well previous to his present illness which began about four weeks before entrance with languor, weakness, loss of appetite. A month ago he began losing weight. At that time he weighed 180 pounds and thought he had lost about thirty or forty pounds. He has pain in the upper abdomen during his illness which has been much worse during the last three days. Food has no relation to the pain. He vomited several times during the night, has been very thirsty, is short of breath and is constipated.

Physical examination shows a patient who is a poorly nourished white male. He appears very drowsy. A marked odor of acetone to the breath. The face is bluish. The hands and arms are almost black. The head is negative. The pupils are equal and react promptly to light and accommodation. The nose and ears are normal. The teeth decayed and in poor condition. The tongue is red, dry, and is not coated. Tonsils are normal. He has no enlarged glands. The heart is regular, beats rapidly, no murmur present. The lungs show no abnormality. The abdomen contains a large mass which extends below the costal margin to below the umbilicus in the right mammary line. The mass is smooth, firm, and is only slightly tender. Reflexes are sluggish. The extremities show no edema but many copper colored discolorations. The Wassermann was normal.

The patient was rapidly developing diabetic coma, as evidenced by the symptoms and the urine analysis which showed sugar 1.66 percent. Acetone present. Diacetic acid present. Insulin was given in ten units dose each hour for seventeen doses, at which time the urine was free from sugar, contained only a trace of acetone and was free of diacetic acid. The following is his diabetic chart during the next eight days. On the eighth day he left the hospital without permission, stating that he would take no more insulin and that he was going to eat what, and as much as he pleased. (Chart No. 2.)

He went home, did not take insulin and did eat.

Name—Fred, C. L.

CHART NO. 3

Date	24 Hr Amt	Spec. Grav.	Alb.	Acet.	Dia.	%	C.	P.	Fats	Wgt.	Units
9-30	single	1031	tr.	tr.	0	----	90	70	175	142	23-23-23
10- 1	1650	1015	tr.	0	0	1.1	90	70	175	142¾	24-24-24
10- 2	1150	1015	tr.	0	0	1.7	90	70	175	145½	24-24-24
10- 3	550	1026	tr.	0	0	4.1	90	70	175	147	26-26-26
10- 4	400	1030	tr.	0	0	3.5	90	70	200	149½	26-26-26
10- 6	350	1028	0	0	0	tr.	90	70	200	150	26-26-26
10- 7	325	1026	0	0	0	tr.	90	70	200	156	26-26-26
10- 9	400	1016	0	0	0	tr.	90	70	200	160	26-26-26
10-10	1400	1011	0	0	0	0	90	70	200	162½	26-26-26
10-13	2155	1005	0	0	0	tr.	90	70	200	161	26-26-26
10-14	2000	1003	0	0	0	0	90	70	200	161	26-26-26
10-18	1000	1015	0	0	0	0	90	70	200	160	26- 0-26
10-19	2000	1000	0	0	0	0	90	70	200	159	26- 0-26
10-20	1600	1003	0	0	0	0	90	70	200	-----	26- 0-26
10-21	1650	1005	tr.	0	0	0	90	70	200	157	25- 0-25
10-22	1400	1007	tr.	0	0	0	90	70	200	155½	22- 0-22
10-23	1900	1005	0	0	0	.7	90	70	200	154	25- 0-25
10-24	2100	1010	tr.	0	0	1.1	90	70	200	152	25- 0-25
10-25	1900	1010	0	0	0	tr.	90	70	200	150½	25- 0-25
10-26	1200	1020	0	0	0	0	90	70	200	-----	25- 0-25

He began to feel bad. The pain in the abdomen began to keep him awake nights. The weakness was progressive and pronounced. Dyspnea developed and he entered the Iowa Methodist Hospital on September 30, 1924.

Chart No. 3 is the diabetic chart while in that institution. While there he gained weight, felt fairly well, was up and about the ward. Dyspnea was present but not marked. The abdomen was distended, due to the large liver. He left the hospital on October 26, 1924. He again refused to take insulin or to weigh the food.

On November 5, 1924, he was brought into the Des Moines City Hospital in deep coma. Insulin was given each hour in forty unit doses. Heat was applied about the body. Heart stimulation was used. Fluids were given. The patient died twelve hours later.

Autopsy report, Case No. 2—The body was that of a white emaciated male. The skin surfaces of the hands, arms to the elbows, and face showed a bluish slaty discoloration. There was evidence of recent edema of the lower extremities. The lungs showed a marked anthracosis, many calcified glands along the hilus of both lungs. The heart was normal in size and shape. The endocardium and pericardium were normal. Many patches of sclerosis were found along the arch of the aorta.

On opening the abdomen little fat was found in the mesentery or otherwise. The abdomen contained a moderate amount of clear straw colored fluid. The gall-bladder was free from adhesions and was filled with bile. No abnormality was found in or about the stomach. The liver was uniformly enlarged and extended to the umbilicus. The pancreas was bound down by adhesions and was not enlarged. The spleen was enlarged to twice the normal. The kidneys were normal in size and were macroscopically normal. The bladder was free from stones, was filled with urine. The pancreas, liver and spleen showed a deep prussian blue color when treated with a solution of potassium ferrocyanide and a drop of hydrochloric acid.

Anatomical diagnosis—Aortitis. Hemachromatosis. Cirrhosis of the liver. Fibrosis of the pancreas.

Miss Mildred G. Smith, R. N., formerly educational agent of the Minnesota State Department of Health, has been appointed staff associate of the National Society for the Prevention of Blindness, with headquarters in New York City. Miss Smith will act as liaison officer between the society and the various nursing organizations, public and private.

Miss Smith has had six years of public health experience. She was with the Red Cross in France during the war and has been on the staff of the Minnesota State Department of Health since 1925, first as field representative and recently as educational agent.

THE PRESENT STATUS OF X-RAY TREATMENT OF CERTAIN NON-MALIGNANT PELVIC CONDITIONS*

ARTHUR W. ERSKINE, M.D., Cedar Rapids

X-rays have been used in the treatment of fibroid tumors, fibrosis of the uterus and uterine hemorrhage almost since the time of their discovery. Although their use was at first largely empirical, enough satisfactory results were obtained to give the method a place as a standard therapeutic measure. With a better understanding of the physiological action of x-rays, improved technique and more exact measurement of dosage, and recognition of the indications and contraindications for their use, the x-ray treatment of these conditions has become so satisfactory and exact a procedure that it may well be considered in every case.

X-rays affect fibroid tumors in two ways. First, as a direct solvent of connective tissue, an action which is easily observed when x-rays are applied to keloids, and second, by inhibiting or abolishing the internal secretion of the ovaries. The latter effect of x-rays, the so-called "dry castration", is all that is necessary to cure excessive hemorrhage of the menopause, or that due to fibrosis or small fibroid tumors.

Among the contraindications to x-ray treatment of fibroids and uterine hemorrhage are any conditions which will require operation such as co-existent carcinoma of the fundus, cysts, and pyosalpinx or other inflammatory disease of the adnexa. It is absurd to subject a patient to the discomfort and expense of x-ray treatment when it is evident that she will have to undergo an operation for some other disease. Large fibroids, extending above the brim of the true pelvis, and producing pressure symptoms should be removed surgically. It is possible to dissolve them with x-rays, but the treatment requires so much time, and the toxic symptoms produced by the absorption of the tumor as it is destroyed are so unpleasant, that hysterectomy is preferable in spite of its high rate of mortality. Occasionally we must make exceptions to this rule, and treat patients who are inoperable because of severe hemorrhage or some constitutional disease.

Any patient whose hemoglobin is less than 65 per cent should be treated with x-rays no matter how large her tumor or what complications may be present. The operative mortality is so high

*Presented before the Fifty-First Annual Session of the South-eastern Iowa Medical Society, Muscatine, Iowa, October 21, 1926.

in anemic patients that hysterectomy is not justified, especially since we have so efficient a method of controlling hemorrhage as radiation.

A second positive indication for x-ray treatment is any constitutional disease which renders the patient a doubtful surgical risk.

There remains a rather large group of cases in which positive indications or contraindications for either surgical or x-ray treatment are lacking. The patients have no pressure symptoms, and are not so depleted by loss of blood that an operation is inadvisable. I see no reason why they should not be permitted to make a choice. They may be told that the advantages of an operation are that it is quick and certain. Its disadvantages are, a certain amount of danger, the anesthetic, some pain, and the expense of nursing, hospitalization and loss of time.

The advantages of x-ray treatment are, its relatively small cost, its safety, and the fact that usually, but not always, the patient can go about her usual occupation. X-ray treatment has the disadvantage of being slow, and in about half the cases, of producing a certain amount of nausea and feeling of depression.

Forty per cent of enough x-rays to produce redness and scaling of the skin, if delivered to the ovaries, will produce a permanent amenorrhea. The length of time required to give the "castration dose", and the other factors of technique may be varied according to the size, and to a certain extent, the age, of the patient.

Patients more than forty-five years old, are already prepared by nature for the menopause, and there is no objection to giving the full treatment in as short a time as possible. My own practice is to give one-sixth of the total estimated dose every two or three days until the series is completed. The patients usually menstruate only once afterwards.

Between the ages of thirty-five and forty-five it seems wiser to take more time to bring about the menopause. I give one-sixth of the total dose every three weeks until the menses no longer appear. With patients under thirty-five it is not always necessary completely to abolish the menstrual function. I give them one-sixth or one-eighth of the "castration dose", every four weeks until the amount of flow becomes normal or until they miss a period. In many of this group normal menstruation is reestablished and they occasionally bear children. All of these rules may be modified or ignored in cases of profound anemia from excessive hemorrhage.

A question is often asked as to the effect of x-ray treatment upon the future sexual life.

While information on this point is not easily secured, it seems that in about two-thirds of the cases no change is noticed. The remainder are about equally divided, half of them reporting an increase and half a decrease of libido. I believe that increased libido is practically always due to relief of tenderness from pressure or an irritating discharge. In the doses ordinarily employed, x-rays have no effect upon the interstitial ovarian structure.

If the cases are selected with reasonable care one may expect satisfactory results ninety-five times out of a hundred. In a series of about 200 cases of uterine hemorrhage and fibroids I have had five patients abandon the treatment because of nausea, vomiting and depression. One patient told me she would have preferred an operation, and in two patients x-ray treatment failed to control the hemorrhage, because of coexistent carcinoma which I failed to recognize.

SYPHILIS

(The Probable Origin of a Multiplicity of Diseases)

OSCAR D. MEYER, M.D., Saint Louis, Missouri

HISTORICAL

The general classifications of microbes or microorganisms are as follows: (1) Bacilli; (2) Cocci; (3) Spirillum. De Bary, in DaCosta's "Surgery", classifies or rather compares these forms to the lead pencil, the billiard ball, and the corkscrew respectively.

The markings of ancient Egyptian mythology, in which the straight line symbolized the male and the circular line the female, contained also the crooked line resembling a serpent which was emblematic or symbolic of illicit intercourse. These markings have been preserved to the present day in the various museums of the world.

My subject chiefly concerns the crooked line, the corkscrew, the spirillum microbe, or whatever you may choose to call it. In this article I shall name it the *spirochaeta pallida* microbe, the germ that causes the disease commonly named syphilis.

There has been much discussion as to when and where syphilis first originated. Some of the books of the Old and New Testaments reveal considerable knowledge in reference to uncleanness and various pathological conditions which were present in mankind at that time. The disease received its present name—syphilis, from Hieronymus Fracastor. He wrote of a shepherd, by the name of Syphilis, who had contracted the

disease supposedly because of blasphemy. The origin of the meaning of the word syphilis was to maim, or cripple.

Some time ago, certain medical authors claimed one per cent of all the people to be syphilitic. Hazen, in his book at a later date, claimed that ten per cent or more were syphilitic. A paper read before the Saint Louis Medical Society by Doctor Grover Liese on January 12, 1926, reporting the findings of one of the natal clinics, found ten per cent of pregnant women to be syphilitic. Other statistics showed that twenty to twenty-five per cent of the population of some nationalities had either seriological tests, clinical manifestations, or some indications of the disease.

The United States Public Health Service furnishes literature to coincide with the above assertions. We should not forget Doctor William Osler's early knowledge on this subject when he said: "Know syphilis in all its manifestations and relations and all other things clinical will be added unto you".

Syphilis usually manifests itself in the primary stage by a hard sore or chancre which appears at the point of inoculation and is caused directly by the invasion of the *spirochaeta pallida* microbe. Infection takes place in many ways, some of which have not as yet been discovered.

A number of authors regard syphilis as the probable cause of twenty per cent of our diseases and it is likely that further research and the results of our present day treatment will increase this percentage. With all the accumulated evidence on hand, we might assert that syphilis is the direct cause of many of our chronic affections and a contributing cause to many of our acute diseases which result from a lowered resistance due to an impoverished condition of the blood and tissues.

DIAGNOSIS AND SYMPTOMS

Diagnosis is usually made by a Kahn or Wassermann test, but this is not to be relied on exclusively, as many negative reports show considerable pathology and respond with good results to anti-syphilitic treatment. A one plus Kahn or Wassermann test, with symptoms, should be regarded as seriously as a blood test showing a stronger reaction, as we are never certain when the vitality of the individual showing such a reaction is lowered and the *spirochaeta pallida* will come forth with new life and energy. This condition may occur with insufficient treatment, which in some cases simply provokes the disease, changing a one plus to that of a stronger reaction. I have experienced this occurrence in patients

where the treatments were discontinued for a period of time.

In a psychological test fear without a material basis is often a diagnostic symptom of some indication of syphilis, especially where the brain is involved. The common understanding of paresis is softening of the brain with slight paralysis, but the softening does not only exist in the brain of most of these patients, but also in the tissues of the body; this is also true of chronic syphilitics, who have not been treated; the flesh is flabby and loses elasticity; the veins are soft, and sometimes one has difficulty in administering remedies by the intravenous method, the flesh bruising with the slightest traumatism.

The subjective and objective symptoms of the nervous system, including headache, loss of sleep and nervousness, with various tests in reference to the spinal fluid, reflexes, and organs of special sense such as: eye, ear, et cetera, together with various paralyses that may occur, aid greatly in making the diagnosis.

TREATMENT

We, as medical men of the present day, are greatly interested, or should be, in the treatment of this disease, because of its untold ravages on the human body and on the human race, and its probable existence in some form not recognized in lower animal life.

It has been stated that if it were possible for us to diagnose a disease, the treatment would be an easier matter. It is this particular thought that has greatly impressed me, in as much as where the treatment is effective it is a more simple problem to make the diagnosis.

It has often been mentioned in the past that it was possible to practice medicine with a few drugs and chemicals. Many physicians have said that they could limit their treatment to mercury salts (calomel, et cetera), quinine for fever, and a drug to relieve pain. There is no question that they enjoyed good results. If we will take the time to consult the average text-book on the treatment of disease, we will find that the treatment given in the majority of diseases includes some form of mercury.

Arsenic compounds were also highly endorsed as alteratives for their specific and positive action and seldom failed to give good results with those whose vitality was below normal.

Bismuth, likewise, played its part well, and at the present time these three chemicals and their salts are, as they were in the past, our best anti-syphilitic remedies.

Our present advancement in the administration

of medicine by intravenous and intramuscular injections, and our development of a higher grade of salts of the above mentioned chemicals, renders our armament very effective indeed. This is due to a greater solubility and a lesser caustic and toxic action.

With the development of the mercury quartz lamp, we have a valuable treatment for various skin diseases.

In writing this article, I wish to briefly outline my experience in the treatment of syphilis and more especially the proper use of mercury and its salts, about which I have been greatly interested.

Besides being a physician, I have supervised the management of a drug store for the past twenty-two years, during that time filling thousands of prescriptions, and I can honestly say in my experience, I have found that mercury and its salts have as much, if not more, specific and curative action in many of our variously named diseases than quinine in malaria, arsenic in chorea, or opium in the relief of pain.

As water is our greatest solvent in a physical way, so also is mercury, in a chemical way, by virtue of its amalgamation properties, supreme in its solvent action on the impurities of the body.

Mercury and its salts have always been associated with the treatment of syphilis. We have records of the Chinese using this element, in treating disease, more than four thousand years ago. Hieronymus Fracastor's poem on syphilis constantly refers to the treatment with mercury as the only remedy that would cure the disease. He published or wrote his poem—"Fracastor's Syphilis"—in the early part of the sixteenth century, and gave the name of "Syphilis" to the various pathological conditions and symptoms that were characteristic of this scourge or disease. His diagnosis, being of a clinical nature, and was no doubt substantiated by the results he had experienced with the treatment of mercury.

Unguentum hydrargyrum (blue ointment 33 per cent or 50 per cent metallic mercury) is one of our oldest preparations, and gives excellent results by inunction when one does not wish to use intravenous or intramuscular injections of mercurial salts. Mercurosal (chemically disodium-hydroxy-mercuri-salicyl-oxy-acetate) contains mercury in organic combination, thereby producing a salt of a higher type than our past inorganic radicals. It has a greater solubility, a lower toxicity, a content of approximately 44 per cent metallic mercury, and can be used intravenously. Its action is not so sharp in contradistinction to various other mercury salts, with the

probable exception of Mercurio-Chrom which has proved very effective as a therapeutic agent in syphilis and allied diseases.

Experimental proofs have established beyond a question of doubt that the nodules produced in the acute stage, and where the pathology caused by the spirochaeta pallida is not too extensive, will be dissolved by the administration of a certain number of doses of a mercury salt, such as Mercurosal which can be used intravenously. Recent summaries showed a 70 per cent cure or improvement of infected rabbits by this treatment.

The nodules, tumors, or gummata caused from human syphilis by infection from the spirochaeta pallida may vary in size from a pin's point to a hen's egg or even larger.

Much credit should be given to Doctor Hugh H. Young for his article entitled "The Sterilization of Local and General Infections", which appeared in The Journal of the American Medical Association of October 23, 1926. This article contained a summary of the treatment of six hundred eighty (680) patients with Mercurio-Chrom-220-soluble (DiBrom-OxyMercuri-Fluoroscein, containing 24 per cent metallic mercury in combination), with whom he and his associates accomplished wonderful results. By virtue of this article and my own experience, I am able to offer some knowledge on this subject. Doctor Hugh H. Young reported 74 per cent cures or improvements of infections or diseases mostly due to the bacilli and cocci groups of microorganisms. This is approximately the same percentage of cures or improvements experienced with mercurosal on experimental rabbit syphilis with a spirillum microorganism and with the mercury treatment, in general, on human syphilis.

The percentage results of cures or improvements is quite a coincidence, and leads one to believe that many of those diseases and the microorganisms causing them are closely related. The probability remains that had the treatment been followed up in some of the patients with the arsphenamine group and have included the iodides, the phosphates, and the iron salts, and with the proper use of tryparsamide, the percentage of cures or improvements would, in all likelihood, have been greater, as the treatment would have been more complete.

I am furnishing a duplicate copy of some of the more important of the seventy or more infections, diseases, or pathological conditions in this summary which were treated by intravenous medication of Mercurio-Chrom. This report showed excellent results with approximately 74 per cent cures or improvements.

Abscesses	Lymphatic Infections
Anemia	Malaria
Anthrax	Mastoiditis
Arthritis	Multiple Focal Infections
Asthma	Ophthalmic Infections
Biliary Infections	Osteomyelitis
Cellulitis	Pericarditis
Colitis	Peritonitis
Encephalitis	Pleurisy
Erysipelas	Pneumonia
Furunculosis	Poliomyelitis
Carbuncles	Puerperal Fever
Gangrene	Puerperal Sepsis
Cystitis	Psoriasis & Skin Diseases
Pyelonephritis	Scarlet Fever
Prostatitis	Septicemias
Vesiculitis	Thrombophlebitis
Salpingitis	Typhoid Fever
Leprosy	Ulcers

I have experienced good results by intravenous injections of mercurial salts in many of these diseases, infections, and pathologies already enumerated and in others such as locomotor ataxia, chancroid ulcers and buboes, pulmonary tuberculosis, duodenal ulcer, bed sores, ascites renal and cardiac, menorrhagia, hemophilia, chronic constipation, et cetera.

The flesh of a cancerous or diabetic patient usually bruises at the slightest traumatism, and their flesh, in the majority of instances, is benefited by the intravenous medication of mercurial salts. It has been said that cancer is caused by a multiplicity of diseases, each sustained by the other. If this is true, we cannot separate the diseases in the patient, but we can separate the treatment to obtain the best results and possibly prevent cancer in the future. The proper use of anti-syphilitic remedies, including radium, x-ray, and surgery when indicated, will help greatly to eliminate cancer.

I would like to refer at this time to an article that appeared in *The Journal of the American Medical Association* of October 9, 1926, by Doctor Henry C. Sweany, entitled "The Mutation Forms of the T. B. Bacilli", which showed how, through growth in certain culture medium, the tuberculosis bacilli may assume different forms such as diptheroid, diplococci, streptococci, staphylococci and granules, and that the coccoid forms may reverse themselves into the bacilliary forms.

This article of Doctor Henry C. Sweany's is worthy of considerable thought and research. If mutation forms have occurred between the bacilli group and the cocci group, the same may be possible from the spirillum to bacilli or spirillum to cocci groups, and thereby prove the relation of many of our various microorganisms causing dis-

ease. It is reasonable to suppose that many of our present microorganisms causing disease have originated from one common source. Syphilis is one of the oldest of our known diseases. The theory of evolution is well founded and we know that the process of growth and cross fertilization produces many changes in the vegetable and animal kingdom.

As our world is in a constant state of progression or evolution, and the unchangeable law of constant change is ever present, the treatment in this disease should follow these principles by being progressive, continuous and alternating.

In the treatment of an advanced case of syphilis, good results are obtained by first using fifteen to thirty daily inunctions of mercurial ointment. This should be followed by eight to twelve intravenous injections of Mercurosal and then by four or five intravenous injections of Mercuro-Chrom, which salt is more penetrating in action than mercurosal and which has proved very effective in treating infections and likewise in cleansing the circulatory and lymphatic systems.

We have had conclusive evidence, by the various reports, that mercury and its salts has cured or improved 70 per cent of a multiplicity of infections due to spirillum, bacilli, and cocci microorganisms, and their resultant pathology. We should now change our treatment to the arsphenamine group to take care of the remaining uncured or unimproved. Three to five intravenous injections of arsphenamine should be given, and then six to twelve intravenous injections of neoarsphenamine or sulpharsphenamine. The sulpharsphenamine may be given intramuscularly. The treatment should now be changed to that of a solvent by using sodium iodide, which is similar in action to the mercurials, but more penetrating. This can be given intravenously or by oral administration. Ten to twelve intravenous injections will be very beneficial. The treatment can be continued by giving five to ten intravenous injections of silver-arsphenamine, with a soluble iodine. The soluble iodine may be given at the same time intramuscularly or by oral administration if we find the reaction not too severe. These last two are very penetrating in their action. Ten to twelve intramuscular injections of a bismuth salt give excellent results in some cases.

In cerebrospinal syphilis, including paresis, ten to twelve intravenous injections of tryparsamide, is one of our best remedies. If mercury and its salts have been freely used in advance to dissolve the nodules or impurities, and then alternated with tryparsamide, we should not get a dangerous

reaction as the arsenical will be better able to penetrate.

The remainder of the treatment consist of iron salts for the improvement of the blood, the phosphates for the nerves, which may be given by oral administration or intravenous injections, and the various thermo and light therapy, including the x-ray. The judicious use of curative water baths, moderate exercise, good air and sunshine will be very beneficial.

X-ray treatment in syphilis is of value. It is common knowledge that the rays, when properly used, are stimulating, healing and sterilizing. Good results are being obtained in various infections and pathologies and also in revivifying glands with a number of x-ray and diathermy treatments. It is my belief that the x-ray treatment should not be used until the blood and tissues have reached a fairly good condition by the proper use of some of our purifying medicinal materials such as mercury, arsphenamines, iodides, iron salts, et cetera. This thought will no doubt shed some light on the injurious reactions we have had with the x-ray due, in part, to pathology, with its lowered resistance and lack of vitality of the parts treated. I understand that the mercury quartz lamp or intravenous injections of mercury is the best remedy for x-ray burns.

In primary syphilis, one-third the number of doses, in secondary, two-thirds the number of doses, and in an advanced stage of syphilis, the full number of doses enumerated should be sufficient to complete the treatment, depending, of course, on the degree of improvement and the reaction of the blood. I have not tried to define or enumerate all the number of doses of these medicinal materials or the amounts to be given by oral administration or otherwise, or the number of physiotherapy treatments which may be beneficial. I leave that to the judgment of the physician.

In the full dose of a more or less toxic salt given intravenously is approximately four grains, it would be safer to start the treatment with a half grain ($\frac{1}{2}$) or one-eighth ($\frac{1}{8}$) the amount, unless we feel that we are dealing with an emergency; in that case, we will not have time to establish a tolerance.

Most of the doses marked by the intravenous route are given from four to seven days apart, of course taking into consideration the general health of the individual, having previously tested his vital organs, such as the heart, kidneys, lungs, et cetera.

The medicinal materials that I have enumerated are the most important ones and are very

well known to most physicians for the treatment of syphilis and infections.

I trust that I may have given some additional knowledge on this subject and sincerely hope that it may prove to be of benefit to those who are interested.

The principal thoughts I wish to emphasize are as follows:

1. The percentage of cures or improvements in Doctor Hugh H. Young's summary of the 680 patients with diseases attributed mainly to the bacilli and cocci groups of microorganisms, and the results experienced with experimental rabbit syphilis and human syphilis due to a spirillum microorganism are approximately the same. The treatment in each summary is with a mercurial salt.

2. There is a probable relation of syphilis to many of our variously named diseases.

3. The results of treatment with mercurial salts leads one to believe that there is as much pathology due to syphilis with a negative Kahn or Wassermann reaction as with a positive reaction.

CONDENSED DESCRIPTIVE PROGRESSIVE TREATMENT (SYPHILIS)

Active Solvent Treatment

Ung. Hydrargyrum	15 to 30 inunctions
Mercurosal	10 to 12 doses (V)
Mercuro-Chrom.	5 to 6 doses (V)
Bismuth Salts	10 to 12 doses (M)
Sodium Iodide	(V) (O)
Soluble Iodine	(O) (M)
Iron Salts—for blood.....	(V) (O)
Sodium Bromide—sedative	(O)
Sodium Bicarb.—acidity, nausea.....	(O)

Positive Treatment

Arsenous Acid and Preparations.....	(O)
Arsphenamine	2 to 4 doses (V)
Neo-Arsphenamine	6 to 12 doses (V)
Sulph-Arsphenamine—for infants or children	12 to 15 doses (M concentrated) or..... (V)
Silver-Arsphenamine	6 to 12 doses (V)
Tryparsamide (cerebro-spinal).....	10 to 12 doses (V)
Phosphates Ca. & Na.—for nerves.....	(O)
Physio-Therapy, X-ray, et cetera	

Curative water baths, sunshine, good air, and moderate exercise will be beneficial.

V—Intravenous; M—Intramuscular; O—Oral.

In the above list, start treatment with one of the active solvent medicinal materials namely Ung. Hydrargyrum or Mercurosal. Then use Mercuro-Chrom. Now continue the treatment by advancing to Arsphenamine or Neo-Arsphenamine (if preferred the Sulp-Arsphenamine can be substituted). The treatment should now be changed to that of a solvent by using sodium iodide and then using a solu-

ble iodine which is in relation to the iodides as Mercurio-Chrom is to other mercurial salts and silver-arsphenamine to the arsphenamine group as it is more penetrating in action and more effective, and should follow the lesser penetrating medicinal materials in the initial treatment. The treatment should be continued by using silver-arsphenamine. A soluble iodine can be used at the same time if the reaction is not too severe.

The remainder of the treatment consists of iron salts for the improvement of the blood, the phosphates and bromides for the nerves, and the various thermo and light therapy, including the x-ray. The x-ray treatment in syphilis is of value, as it is common knowledge that the rays when properly used are stimulating, healing, and sterilizing. Good results are being obtained in various infections and pathologies and also in revivifying glands with a number of x-ray and diathermy treatments.

In treating infants or younger children, give mercurial rubs and follow with intramuscular injections of sulph-arsphenamine (using concentrated solutions 5 to 10 per cent). The treatment can be continued with syrup of iodide of iron.

Tryparsamide is one of our best remedies in cerebrospinal syphilis and paresis. The tryparsamide should follow and then alternated with the mercury treatment. Intramuscular injections of a bismuth salt give good results in some cases of syphilis.

In primary syphilis one-third ($\frac{1}{3}$) the number of doses, in secondary two-thirds ($\frac{2}{3}$) the number of doses, and in an advanced stage of syphilis the full number of doses enumerated should be sufficient to complete the treatment, depending, of course, on the degree of improvement and the reaction of the blood. I have not tried to define or enumerate all the number of doses of these medicinal materials or the amounts to be given by oral administration or otherwise, or the number of physiotherapy treatments which may be of benefit. I leave that to the judgment of the physician.

If the full dose of a more or less toxic salt given intravenously is approximately four (4) grains, it would be safer to start with a half grain or one-eighth ($\frac{1}{8}$) the amount, unless we feel that we are dealing with an emergency; in that case we will not have time to establish a tolerance. Most of the doses marked by the intravenous route are given from four to seven days apart, of course, taking into consideration the general health of the individual, having previously tested his vital organs such as the heart, kidneys, lungs, et cetera.

The pathology of syphilis shows the formation of nodules throughout the body. In the advanced stage of syphilis these nodules or tumors may enlarge and then degenerate into gummata which show infiltration of various pathologic substances. The principle in beginning the mercury treatment is to dissolve as much of the pathology with destruction of as many invading microorganisms as is possible.

The arsenicals will then be better able to penetrate any remaining lesions, and thus attack and destroy the spirochaeta pallida microorganisms.

We seldom experience a dangerous reaction with mercury compounds if given in intelligent doses, the same being true with the iodides and a soluble iodine. This is not always true with the arsenicals, especially in eye conditions with the use of tryparsamide, and the arsphenamines, which occasionally causes an exaggeration of the pathology that is present. This is more apt to occur when we have not made use of a solvent such as mercury. This same method of treatment should be used in the primary stage as we are never certain that there has not been a previous infection either congenital or acquired. We thus avoid a possible Herxheimer reaction, and assure the patient of a more complete recovery.

We have conclusive evidence that some of the mercury compounds have cured or improved 70 per cent of a multiplicity of infections due to spirillum, bacilli, and cocci microorganisms and also their resultant pathology, and I would recommend this treatment to be used in moderation if a patient has pathology and responds with good results to mercurial treatment, even though he or she gives no history of previous infection and shows a negative reaction to a Kahn or Wassermann test.

Iodine and the iodides have always been used for their solvent action in treating apoplexy with its usual resultant paralysis, and other sequela, following an advanced stage of syphilis, which frequently occur through insufficient or improper treatment. It is very probable that if these had been used in the initial treatment such pathology would not have occurred. This is likewise true of tryparsamide which should be used in the initial treatment as a possible preventive for any subsequent involvement of the brain or cord. This thought alone indicates the probability of the treatment having not been complete in the past and that one should not wait to make use of the iodides and tryparsamide until these sequela happen, but that the treatment should have been progressive and have included the mercurials, arsphenamines, tryparsamide, iodine and iodides, iron salts, et cetera.

Many conditions showing pathology due to syphilis and allied diseases which were treated by surgical intervention in the past would in all likelihood have received far greater benefit and with less danger to the patient had they been treated with intravenous injections of mercurials, arsphenamines, et cetera.

It is reported that twenty children's welfare organizations in Iowa are to consolidate into one known as the State Child's Health Council, which will co-ordinate the numerous welfare activities of the state. This seems a movement in the right direction and in accordance with the general trend of affairs.

LIVER AND GALL-BLADDER DISEASES*

ROSINA WISTEIN, M.D., Cedar Rapids

I have selected the study of the liver and gall-bladder because of the unusual interest diseases of these organs have always had for me.

In my sophomore year the study of the anatomy, physiology and pathology of these organs constituted my Sunday recreation. I would like to state at this time, also, that I have always been grateful for having had Dr. Peter Dryer, Dr. William Evans and Dr. W. F. Quine for my teachers in medicine.

After entering active practice this interest was very much intensified. Twenty-five years ago no medical education was considered complete without a trip to Europe, but I did not wish to take it inexperienced or unprepared; therefore after my graduation I became connected with the clinics at the Illinois University Medical School, and at the Mary Thompson Hospital of Chicago.

During my two years' stay in Europe I had ample opportunity for studying liver conditions in heart diseases under Sir James MacKenzie in London, where thirteen hundred cases were examined; then in Czecho-Slovakia, through the kindness of the most eminent physicians in all the large hospitals, opportunity was given me to examine any case or as many as I desired, and even in the private cases of many of the professors I had the privilege of extensive cooperation.

I cannot say that I learned anything new in Europe, but with the greater number of patients for each disease, I learned to apply the knowledge and experience gained in our institutions much more skillfully and to a better advantage. One thing, however, made a deep impression on me over there, and that was the small value placed on human life even before the war, and how little was really done for the patient between diagnosis and post-mortem.

In private practice I have given a great deal of study to individual cases, as I found that each case must be studied individually. Gross pathology does not always mean the same symptomatology. One condition, however, is always present, and that is toxemia, the degree of which may manifest itself in digestive, cardiac, neurotic or nephritic disturbances, all combined or singly, but some are always present. I have never, during twenty-five years in medical practice, seen an uncomplicated, simple cholecystitis or hepatitis.

Before discussing the etiology I wish to make this statement: It is one thing to treat liver conditions with all hospital paraphernalia, capable assistants, intelligent nurses, laboratory and x-ray equipment. It is another matter when you have none of these and an army of well meaning but ignorant relatives who all think they know more than the doctor, and you have to rely absolutely on your knowledge, experience, tact and the applicability of these to the case at hand. Therefore I shall not take up time with exhaustive theories, some of which are absolutely inapplicable in private practice, and can only be carried out under most favorable conditions.

Let us briefly review the anatomy, physiology, blood and nerve supply of the liver. The liver is the largest glandular organ of the body, weighing from three to four pounds, five lobes, five fessers, five ligaments. This rolls off the tongue glibly, but what is our positive knowledge of these lobes as compared with the anterior, middle and posterior lobes of the pituitary gland, or even the thyroid? Do all the lobes of the liver have the same function, or has each lobe a distinct function of its own? Green points out that most tests of the liver function investigated describe one or more functions of the liver, but do not reveal the status of the liver as a whole. We do know that the liver has both a secretory and excretory function. Each lobe is made up of small lobules $1/25$ of an inch in diameter. These lobules are separated by a space containing blood-vessels, nerves, hepatic ducts, lymph channels. The blood-vessels entering the liver are the portal veins, made up of gastric, splenic, superior and inferior mesenteric and the hepatic artery. These vessels divide and subdivide into a fine network forming the interlobular, intralobular and sublobular veins, and again uniting, carrying the blood into vena cava. The hepatic ducts or bile capillaries originate within the lobules and empty into interlobular ducts; these unite, forming larger trunks, finally forming the hepatic duct. This joins the cystic, and finally the union of the two forms ductus communis choleductus, opening into the duodenum. The blood supply (coeliac axis), gastric, hepatic and splenic (the anastomoses of these arteries is a study by itself) may help us to understand our pathology and symptomatology very much better; in fact, we must do so to have a clear picture of the patient's condition. The nerve supply is also a mighty interesting study. The largest branches of the solar plexus are distributed around the coeliac axis; and as it is made up of the splanchnic, right pneumogastric and sympathetic nerves, and its location just behind

*Read at the annual meeting Iowa State Society of Medical Women, Council Bluffs, Iowa, May 10, 1927.

(Reprinted from the Medical Woman's Journal)

the stomach might explain to us the reflex pain complained of by patients in appendicitis and cholecystitis, and also why the stomach, according to Mayo and Crile, is the greatest liar in the body.

We learn also that the sympathetic nerves exert powerful influence on all glandular organs, hence anything which might cause inhibition or acceleration of the sympathetic nerves would have a distinct influence on the liver function.

We have been taught that the function of the liver is the secretion of bile and the formation of glycogen, urea and allied products and a modification of the composition of the blood. Carlson, in the *Journal of the American Medical Association* (1925, 85, 1468) discusses a newer status of the liver. He states that under various experiments it has been proven that fibrinogen is produced in the liver under its direct influence. Mann states that the liver is the main organ forming urea and destroying uric acid.

Carlson also states that after extirpation of the pancreas the liver loses the power to store glycogen in spite of the high sugar content in the blood. It can do so after administration of insulin. This author also maintains that bile is both a secretion and an excretion, but bile pigment can be formed in large amount outside of the liver. It is probable that the liver is one of the main sites of the solution of erythrocytes. Jaundice may appear without any obstruction to the flow of bile. Hence any application of dye-stuffs has to do with only excretory function. Carlson does not attach much importance to the gall-bladder. He considers it vestigial, only feebly contractile, and the flow of bile to duodenum to be determined more by the tonus of the muscle in the duodenum than by the tonus of the sphincter of Oddi. He believes that the quantity and quality of food in the upper small bowel is the important factor in bile output.

Mann, in his experiments, has come to the conclusion that destruction of the uric acid depends on the presence of the liver. It may be well to bear this in mind in cases of the high acidity so many patients complain of. He also points out that the liver is the seat of a mechanism by which constant blood sugar level is maintained.

Crile states that liver and brain are affected simultaneously by any cause of exhaustion. In every experimental test the liver has been found to be more sensitive than the brain.

Annals of Clinical Medicine (1926, 54, 806).
Experimental test:

A. Exhaustion from any notable cytological

change produced in the liver is coincident with the same changes in the brain.

B. Electric conductivity in the brain produces opposite changes in the liver.

C. Temperature of both the liver and brain decreases progressively under prolonged stimulus.

D. In exhaustion due to prolonged stimulus or to disease, the capacity of the brain and liver is decreased.

E. Removal of liver causes progressive disintegration of the brain cells. (Important.) Renauld, Capart established the fact that abdominal blood is essential to the functions of brain centers, and the liver alone of all abdominal organs has this property.

Conclusion: Experimental and clinical evidence show us that to the extent liver cells are damaged, to that extent also is the resistance of the patient diminished.

I have given this prolonged physiological revue, as I feel sure it has a very important bearing on the diagnosis and treatment of liver and gall-bladder diseases. All this goes to show the importance of liver functions as a whole. Very little is as yet said or known as to just what really takes place in the liver in diabetes, as unquestionably something does take place coincidentally with the pathology of the pancreas.

ETIOLOGY OF LIVER AND GALL-BLADDER DISEASES

External:

1. Various injuries.

Mechanical:

1. Sedentary habits.
2. Obstruction to circulation as in cardiovascular diseases.
3. Pressure from tumors.

Chemical:

1. Various drugs:
 - A. Arsenic.
 - B. Phosphorus.
 - C. Lead.
 - D. Alcohol.

Bacterial (Babcock's classification):

1. Portal infection.
2. Intestinal ulceration.
3. Ascending biliary infection.

Hematogenous:

1. Cholera.
2. Syphilis.
3. Typhoid.
4. Malaria.

By continuity:

1. Tuberculosis.

The bacteria seem to predominate as causes of acute and chronic hepatitis, cholecystitis and cholelithiasis.

PATHOLOGY OF LIVER AND GALL-BLADDER DISEASES

The pathology of liver and gall-bladder is not confined only to these organs. It depends on the duration of the disease, nature of it and the involvement of the other organs. We may have passive congestion, various types of degeneration, even multiple abscesses. In chronic cases hyperplasia of connective tissue is usually present, as in cirrhosis and syphilis. The pathology of the other organs will depend on the acuteness or chronicity of the case and the nature and intensity of inflammation and infection present.

The involvement of the surrounding organs can be traced to the blood and nerve supply. The blood supply is derived from the coeliac axis, which is composed of the gastric, hepatic and splenic arteries. It stands to reason that anything disturbing or altering the blood supply of the liver will soon produce the same condition in the organs deriving their nourishment from the same source.

The same rule applies to the nerve supply. Any irritation of the branches of the splanchnic, pneumo-gastric or the sympathetic nerves will manifest itself reflexly in other organs supplied by these nerves.

The gall-bladder may or may not contain stones or pus. There may be an inflammatory condition of the mucous membrane, with a thickened bladder wall, which has frequently been characterized as the strawberry gall-bladder. This condition at times causes more disturbance than the gall-stones.

Harlow Brooks, in Transactions of Gastric Enterological Association (1925, p. 278), discusses the pathology of the liver in certain forms of heart diseases which may occur in any chronic hepatitis. He says: "When, for any reason, the chambers of the heart are unable to clear themselves of blood in cystole, a damming back in the inferior vena cava takes place. The liver capillaries are capable of tremendous distention, especially when pressure is exerted from the vena cava side of the circulation."

SYMPTOMS OF LIVER AND GALL-BLADDER DISEASES

Pain. This at times is very intense, varies in intensity and duration; usually located in epigastrium and radiating to the right and back, below the right scapular region, and may radiate downward to appendicial region.

1. Gastro-intestinal symptoms: Nausea, vomiting. This in cholecystitis and cholelithiasis is more frequent and intense than in appendicitis.

Patient complains of so-called bilious attacks, a sense of weight and oppression in epigastrium; inability to take certain foods, especially fats and sugars.

2. Cardiac: Arrhythmias are very common; heart sounds, distant and feeble in character; pulse irregular, of small volume; pain over cardiac region is very frequent.

3. Respiratory: Asthmatic conditions are frequent; persistent cough with negative condition in lungs. This symptom is diagnostic of stone in the cystic duct. Old people used to call it "stomach cough", and there was more in that name than they dreamed of.

4. Coexisting pelvic conditions in married women and mothers. Tumors, laceration, eroded cervixes.

5. Renal: Albuminuria, glycosuria which disappears after gall-bladder's removal, if there is no organic disease of the kidney.

6. Neurotic: Headache, irritability, neuroses of various kinds; hysteria, sleeplessness; a constant desire to sleep and cannot.

The complexity of symptoms is such as to test the knowledge, tact and astuteness of the finest diagnostician. I am limiting this paper to female patients, as my experience with male patients of this type is limited to about a dozen cases. These symptoms vary, depending on the nature of infection, duration of disease and complications, and last, but not least, the personal equation of the patient.

DIAGNOSIS OF LIVER AND GALL-BLADDER DISEASES

Diagnosis of liver and gall-bladder diseases is very difficult. At times complexity reigns supreme. In passive congestion of liver due to cardiovascular trouble, there is no acute pain, but tenderness and distress. In cholelithiasis or cholecystitis pain may be very acute and severe, radiating to the back, or even downward to the appendix, or even the entire right side.

Miller in Illinois Medical Journal (1926, 69, 450) says regarding pain:

1. Definite localized tenderness beneath costal arch in parasternal line.

2. Pain usually on full stomach, in differentiation from ulcer.

3. Long periods between attacks, followed by periods of indigestion.

4. Positive Van der Bergh test for bile. In prolonged cases even an explanatory incision must be made for positive diagnosis. The pain

often closely resembles that of renal colic. Great care must be taken to differentiate between these symptoms and those indicating appendicitis, duodenal ulcers and tubercular peritonitis. Syphilis sometimes adds another complication. The average practitioner cannot always avail himself of laboratory equipment, x-ray or cholecystography, which would be of valuable assistance to him, but must rely upon his own resources.

In protracted cases there is always disturbance of digestive function. Patients complain of being bilious. In many of my own cases there were serious neurotic disturbances manifesting themselves in hysteria, pseudo-paralysis, neuritis, sleeplessness and general nervous instability.

In few diseases is the history of the patient so important as in diseases of the liver. Chronic constipation, chronic colitis and typhoid fever play an important part in the etiology of gall-stones.

Respiratory symptoms most frequently manifest themselves in asthma. I have had a case of the most obstinate and serious asthma which, after removal of an infected gall-bladder, never recurred. A very dear friend of mine, an eminent physician, had an obstinate cough without any demonstrable pathology in the lungs, and was advised by one of the leading physicians of our country to leave for a milder climate. Then one day there occurred a rupture of the gall-bladder. There was a stone larger than a walnut, with no previous symptoms of liver or gall-bladder disease, but there was a history of typhoid fever. I have seen a case at Cook County Hospital of Chicago which was examined by some of the best men and treated for tuberculosis, although the patient had no other symptoms than a cough, no tubercular bacilli in sputum. Then one day she was seized with violent abdominal pain and died in a short time. Post-mortem revealed three large stones, one in ruptured gall-bladder, one in cystic duct, one in duodenum.

Cardiac complications are the most difficult, especially where chronic myocarditis is present with a semi-broken compensation. The tenderness in parasternal line is present as well as tenderness over the entire upper half of the abdomen. Owing to the oedema and rigidity of the recti muscles, no very good examination is possible when cholelithiasis is present. In these cases it is almost impossible to make a positive diagnosis. Some myocarditis is always present in chronic congestion of the liver, and I have had cases that have absolutely cleared up after cholecystectomy.

Williams also quotes that in 55 per cent of cases of cardiac vascular disease associated with cholecystitis, decided improvement occurred after removal of gall-bladder. In all cases, wherever possible, cholecystography should be done to safeguard the patient as well as the doctor.

TREATMENT OF LIVER AND GALL-BLADDER DISEASES

From what we have seen of the various complications, it is very clear that the successful treatment of liver and gall-bladder diseases is just as difficult as an accurate diagnosis. The treatment must be either (a) Palliative, including

1. Hygienic,
2. Medical,
3. Dietetic,

or

(b) Radical, which is surgical, or both.

Acute cases require relief from intense pain. After that, elimination, rest, diet, regulation of habits and careful watchfulness for recurrent attacks. Clean up and keep clean is a very good method to follow. I have known cases which, after systematic treatment, have never recurred; whereas others, in spite of every available method of treatment, have recurred, and radical measures had to be resorted to.

At present one hears a great deal about the drainage of the gall-bladder. Personally I do not use it, as I have not seen very good results from its use. I do not have many acute cases, but prolonged, chronic ones, and cases after cholecystotomy operations, where dense adhesions are present, therefore indications for its use are not present.

Drainage or cholecystotomy does not remove cause of hepatic toxemia. It may remove bacterial nucleus of gall-stone, but cases of cholecystotomy and drainage that came under my care did not come to me for the ideal relief of their symptoms, but for their persistence.

I object to drainage on the grounds that it is a tiresome, exhaustive procedure, which taxes the patient's strength, prolongs agony, and only in rare cases a cure is accomplished which might have been done also by a simpler method. The drainage of the gall-bladder may clinch diagnosis, but those cases where there is absolute necessity for that are very rare.

Lyon and Swalm in the A. M. A. Journal (85, 20, 1541) describe three vicious cycles in drainage of gall-bladder.

1. Lymphatic drainage between the liver, gall-bladder and pancreas. This is only cured by removal of gall-bladder.

2. Reabsorption of bacteria or toxic substances in the bile through the intestinal walls via mesenteric veins and the portal system to the liver. This is the cycle associated with toxemia.

3. Toxic increment, which is picked up by mesenteric lacteals, emptied into recepticulum, chylithoracic acid poured into L. subclavian vein.

These last two may be benefited by drainage. If these conditions are toxic to the liver, they must be toxic to every organ through which that infected blood flows, and how drain those?

Dr. Mayo says that cholecystectomy, well done, brings about a higher percentage of pronounced cures than simple drainage. He prefers cholecystotomy only in severe jaundice and stones in common duct. He also states that in 50 per cent of the cases cholecystectomy follows cholecystotomy.

If bacteria cause stone formation, this in turn disturbs the bile secretion and excretion. It is apparent there must coincidentally occur changes in the liver cells; hence a change in the quality of the circulating blood; first, in the liver itself; second, in the surrounding organs. This must in some way account for the complexity of symptoms.

Radical removal of the gall-bladder is a desperate effort to help the liver. It is preferred by many surgeons to cholecystotomy. In many instances the digestive disturbances not only persist, but frequently for a time are accentuated after its removal. We must remember that free hydrochloric acid is absent from the stomach after cholecystectomy for some time. There is also a disturbance in carbohydrate and fat digestion in the duodenum. And at times these conditions tax not only the patient's loyalty and patience, but the doctor's ability and patience as well. Let us remember what was said in physiology about brain and liver cooperation, then add to existing conditions the shock of general anesthesia, and it becomes a matter of grave importance that pre-operative care is an important factor to consider. Hot packs to the liver, bile salts, baths, alkalinization, where acidity is present, elimination, and kidney and blood conditions as well require serious attention not only prior to, but also after operation.

All cases of radical procedure require good pre and post-operative care. In fact, the success of surgical treatment depends on the amount of general toxicity present, and on the condition of the liver prior to the operation, and also on the general care after it. Surgery alone is not a successful measure of cholelithiasis or cholecystitis. Each case requires special care of its own. To

be sure, some general principles can be carried out, but success depends on the complications present and on the power of the patient to carry out in detail the doctor's instruction.

Very difficult are the cardiovascular cases with severe enlargement of the liver, œdema and myocarditis. To relieve the liver and the over-taxed heart taxes the ability of the doctor to the highest degree, especially when chronic appendicitis, with cholecystitis and fibroid of uterus, are the complication. Every resource known to medical science must be resorted to, and at times it is really wonderful what results can be obtained if we have an intelligent patient's cooperation.

However, this is a self-evident fact, that much more study and hard work has to be done by the medical profession before we can, with any degree of certainty, approach the conquering point in the treatment of liver and gall-bladder diseases.

SUMMARY

1. Accurate diagnosis.
2. Intelligent, hygienic, dietetic and medical treatment wherever possible.
3. If this is of no avail after a definite period of time, surgical measures.
4. Fine pre and post-operative care.

CLINICAL END RESULTS IN GLANDULAR THERAPY*

J. F. RITTER, M.D., Maquoketa

The "Passing Show" of fads, fancies and fallacies in the domain of therapeutics never presented a more diversified spectacle than the present day procession. Many wonderful advances have been attained, while the mass of proclaimed discoveries that have proven disappointing is legion, imbuing the ethical conservatives with a just and discriminating skeptical criticism, to the temporary detriment of an essentially empirical but meritorious glandular therapy.

In the outlying districts where laboratory facilities are inadequate, clinical material is abundant, giving the rural practitioner exceptional opportunities to exercise a discerning judgment, and to arrive at logical deductions by comparison of clinical reactions. Not infrequently these advantages have sponsored hypothetical analyses later corroborated by laboratory proof.

The most recent and fascinating delirium clamoring for ethical recognition is that of glandular therapy. No cult or method has ever been

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

advanced with more extravagant claims by irresponsible sponsors, nor presented such fascinating lures to discerning study or yielded greater promise of therapeutic advancement than is being daily demonstrated in these extensive fields as adjuncts to regular practice.

Thyroid therapy, through several decades, has slowly attained its place in the sun; pituitrin rapidly won the leadership in dystocia; adrenalin quickly assumed its place as guard in syncope and shock; parathyroid therapy is demonstrating its control of calcium metabolism; while the meteoric rise of insulin to the empire of blood-sugar control weakens the shackles of innumerable diabetics.

These brilliant advances in the domain of the endocrines are largely the result of initial clinical observations noted primarily by widely separated workers, with the vision to suggest hypotheses which incited laboratory research, culminating in the romance of discovery. The result was to place the profession on but the threshold of glandular therapy, presenting interminable vistas of possible accomplishment, and disclosing new worlds to conquer.

One of the most fascinating and promising of these is that of vascular hypertension, which presents as varied aspects as that of any other prevalent disease, and is largely responsible for the following brief statistics:

In 1925-6, 5,209 deaths occurred in the medical profession. Of these, 2,729 or over 52 per cent, were reported as due to cardiovascular-renal disease. Of this 2,729, cardiac involvement embraced 1,654, cerebral hemorrhage 560, nephritis 385, and arteriosclerosis and uremia 120. It is a lamentable fact that this large percentage of fatalities in a scientific profession is due to this possibly preventable group of affections.

It is becoming widely known that extraneous proteins properly administered, will temporarily reduce vascular hypertension. The anterior lobe of the pituitary, the thyroid and the pancreas each yields a vascular depressor element, and various organic extracts give a similar reaction. But the fact is not generally known that the interstitial hormone and gonad serums (testicular or ovarian), freshly prepared and administered hypodermically in doses of one cubic centimeter, especially when combined with one or more of those previously mentioned, is a dependable means of immediate relief in threatening cases of vascular hypertension, giving remarkably lower readings within six to twenty-four hours.

In the work of Maquoketa, Iowa, represented by more than 500 cases, a fall of from 25 to 75

m.m. of mercury in twenty-four hours without depression, is the routine occurrence, the diastolic receding in proportion. In one case of sixty years, a systolic drop from 242 to 135 in twenty hours was noted, later stabilizing at 160 m.m.

No fear need be entertained of an excessive decrease in pressure breaking cardiac compensation in so-called essential hypertension, nor of nephritic suppression in nephro-sclerosis or interstitial nephritis. There is frequently a definite cardiac strengthening following the lowered pressure; a decided increase in urinary secretion and peripheral vasodilation, with a lessening or disappearance of arterial rigidity. Rehabilitation of the cardiac musculature is frequently very prompt owing to the lessened labor required to overcome the peripheral resistance. Concomitantly there is a cessation of annoying clinical symptoms, such as palpitation, dyspnea, migraine, etc.

There is considerable variation in reaction according to the degree of hypertension. The higher the diastolic, the more stubborn of control, high diastolic usually indicating the degree of sclerosis. Those ranging within a systolic of 200 m.m. with diastolic not exceeding 100 m.m., are prompt to react, and generally maintain approximately normal readings. Many of this class have remained normal without further attention for a period of nearly five years, proving to have been largely functional.

Those from 200 to 250 systolic with diastolics 110 to 140, generally present definite arteriosclerosis, and require greater and more persistent efforts to present satisfactory readings. Most of these present a decided initial fall, followed by a rebound to the original level, succeeded by a gradual lysis. Many give approximately normal readings after weekly or fortnightly dosage for two to three months. Others persist in recurrence and may require monthly attention as a control analogous to that of insulin in diabetes.

Those ranging from 250 to 300 systolic have invariably exhibited decided arteriosclerosis with persistent high diastolics. Even here, marked recession occurs with elimination of annoying clinical symptoms, but as they are definitely organic, require continuous attention every few weeks. One marked sclerotic presenting 302/145, by this procedure gives readings of approximately 200/110, with attendant physical comfort and ability to attend to household duties.

A considerable number of moderate but patent Bright's have reacted by restoration of nearly normal readings, disappearance of urinary al-

bumen and cessation of clinical symptoms for from one to over four years.

In apparent nephrosclerosis, where so-called essential hypertension is considered necessary and as a conservative process, a decided fall of pressure is perfectly safe, being promptly compensated by a corresponding increase in nephritic elimination.

In several cases of nephritis, last stage, with extreme dyspnea and the full picture of distress, one c.c. within an hour or two relieved dyspnea and all distressing symptoms. The patients were again able to lie down and sleep, although dropsical effusion might or might not be ameliorated. Repeated every four to seven days, physical comfort was maintained, in some cases for several weeks, until the logical fatal termination.

A number of anginas of obscure origin, but generally presenting some degree of hypertension, present every evidence of clinical recovery for periods of one to three years, with restoration of occupational efficiency.

The administration of fresh interstitial, orchic or ovarian serum promptly exhibits what may be termed a gyroscopic influence on systemic metabolism, radically reducing excessive hypertension and almost as decidedly raising hypotension in asthenic and allied states.

Evidence appears to be conclusive that physiologically it is primarily a formidable antagonist of systemic toxins; that it either stimulates or regulates phagocytosis; increases ultimate tissue respiration; to a degree restores and supports nephritic elimination of urinary solids, and enhances systemic metabolism with the restoration of vegetative equilibrium.

Recurring to vascular hypertension, while the large majority are of a purely functional type and never would terminate in apoplexy, every functional is a potential organic case if subjected to the requisite contributory influences. The importance of its correction or control while still in the functional stage, is just as great as the prevention of smallpox by vaccination or that of diphtheria by the use of toxin-antitoxin.

From routine results at Maquoketa, it has been abundantly demonstrated clinically, that freshly expressed interstitial hormone is a dependable therapeutic agent, and as a vehicle for other endocrine medication and extraneous proteins, may be implicitly relied upon for the control of many ills, and especially those of vascular hypertension and the diseased states with which it is associated.

With reference to our professional mortality I would propound the assumption that the endo-

crinal system is of equal importance in the maintenance of health, to that of the circulatory, central, sympathetic and para-sympathetic nervous systems; that obscure causation of disease may frequently be traced to dyscrinism represented by depletions or perversions of glandular function. It may be precocious to suggest that if the profession, from the age of forty, would concentrate on the regulation of the endocrines, it would correct or at least greatly retard the development of cardiovascular-renal disease.

SURPRISING RESULTS IN PEPTIC ULCER

In no malady so frequently encountered as that of peptic ulcer, is there greater chaos and uncertainty as to cause, clinical course and problematic prognosis. Empiricism as yet must be resorted to for want of a rational analysis.

In my short experience in the satisfactory handling of peptic ulcer, dating from November, 1923, in the treatment of twenty-four cases, twenty-two exhibit every clinical evidence of recovery. The twenty-third and twenty-fourth, now under treatment, are decidedly improved, one gaining in weight from 152 to 171 pounds, and the other from 135 to 150, three weeks from the initial treatment.

For brevity, the clinical course of but my first case will be detailed, as it is typical of every instance to date:

Mrs. Lawrence Moeller of Preston, Iowa, was admitted in early November, 1923, as an experimental case, bringing a diagnosis of peptic ulcer. Dr. O. L. Frank of Maquoketa, confirmed this by x-ray examination, demonstrating a duodenal ulcer.

She had been bedfast for about eleven weeks and was reduced to ninety-one pounds. Diet had been restricted to eight ounces of milk every two hours, night and day, with alkaline medication. If the milk was not available within a few minutes of the two-hour interval, acute distress was manifested, indicating a possible psychosis. Pain appeared to be extreme and gas formation was abundant.

At 8 p. m., 1 c.c. interstitial serum was given and sleep followed within an hour. She awoke at 8 a. m., the first night's rest she had enjoyed for weeks. She was not clamorous for her milk although without it the entire night. Pain and gas formation had disappeared, and did not subsequently recur.

During two weeks she received four treatments and she was permitted to return home the day before Thanksgiving, to report in two weeks. This she did, by which time semi-solid and some solid foods were taken without discomfort. By Christmas day, after the sixth treatment, she indulged in a regular Christmas dinner, and has used normal diet to date. Three months after the initial x-ray she weighed 131 pounds, at which time a second x-ray

showed the involved area to be normal in appearance and function. She has reported every few weeks or months ever since, and without further treatment presents every physical evidence of robust health.

Of sixteen cases reported in 1925 in the American Physician, eight diagnoses were verified by the x-ray either at Iowa City or Rochester. The remainder appeared to be so patent, and x-ray unobtainable, that they were accepted as actual peptic ulcer cases. Of the remaining eight, four were x-rayed, and all have given clinical reactions in conformity with those of the case detailed above. Of this latter group, Dr. C. J. Spruce, of No. 5612 Fulton street, Chicago, reports recovery in three x-rayed cases treated by him.

This peptic ulcer group has invariably presented decided vascular hypotension, usually approximating 100/85, indicating a low systemic metabolism and suggesting a dyscrinism involving the adrenals and the interstitial function. The gastrointestinal defects are of a vagotonic nature, suggesting imbalance of the autonomic nervous mechanism, with imperfect elaboration of protective alexins. This could favor the production of partially devitalized areas subject to possible digestive necrosis and the formation of a potential penetrating peptic ulcer. The uniform clinical reactions witnessed, leads to the tentative idea that the initial dyscrinism, whether adrenal or interstitial, permits the formation of a specific circulatory depressor toxin possessing a special selective affinity for the gastroduodenal mucosa. In support of this hypothesis, the uniform cessation of symptoms within a few hours, by the use of interstitial hormone suggests a direct and specific antitoxic influence, together with a reconstructive phagocytic action on the mucosa of the affected areas.

In support of this, an analogous reconstructive process in laboratory experiments by Allen, Pratt and Doisy, reported in the August 8, 1925, issue of the Journal American Medical Association entitled "The Ovarian Follicular Hormone", apparently corroborates and demonstrates the process of repair of the mucosa. They spayed mice and rats, and after atrophy of the vaginal mucosa and endometrium was complete, injected the animals with follicular fluid, making vaginal smears for microscopic examination. It was clearly demonstrated that within forty-eight hours the vaginal mucosa and the endometrium underwent a reconstructive process to the extent of "more than twelve layers of new cells", and the animals again manifested normal estrus

equalling that of the control animals. The ovarian follicular fluid appears to be analogous in action on the vaginal mucosa and endometrium to that of the interstitial secretion in its reconstructive influence upon the gastroduodenal mucosa in peptic ulcer.

I would stress the importance in glandular therapy of employing only the freshly expressed glandular hormones, nature's own, ready prepared vital ferments, unadulterated or devitalized by preservatives and antiseptics. Administering them in their nascent state, the reaction is immediate, and as patent as that of glonoin or atropine.

In defects where vascular hypotension is found analogous to the readings observed in peptic ulcer, such as asthenia, hypoadrenalism, dementia praecox, neurasthenia and a host of allied states, the prompt change in the low pulse pressure of 15 or 25 m.m. to that of 49 or 60 m.m. within a few hours with relief of subjective and clinical symptoms, is most spectacular, and tries the credulity of him who has not repeatedly observed it.

In any torpid state in which the vital processes are subnormal, the smouldering vital spark is quickly fanned to a normal flame without becoming a conflagration, and a general sense of well-being ensues without over stimulation. The repeatedly prompt action witnessed in the use of caprine serums or hormones have led to the appellation of the vital gyroscope.

Interstitial or gonad hormone or serum is peculiarly efficient as a corrective in functional defects, and is patently the most powerful regulatory hormone in endocrine imbalance. So uniform in reaction and reliable in results has it proven to be in my hands, that it has become routine practice to use it as the base or menstrum for the administration for all glandular preparations. Its corrective influence and clinical reactions appear to be due to homostimulation, followed by restoration and maintenance of normal functional activities.

SUMMARY

The most brilliant recent advances in therapeutics has been in the domain of the endocrines.

Extraneous protein action does not account for the clinical reactions of hormone medication.

In over 500 cases of vascular hypertension, uniformly satisfactory results in its control have been experienced.

In nephritis and anginas, recession of distressing symptoms is decided.

Its action suggests the neutralizing of systemic toxins; regulatory influence on phagocytosis; supports nephritic elimination; improves systemic metabolism with restoration of vegetative equilibrium.

Early attention to regulation of endocrine function promises great retardation in the development of cardiovascular-renal disease.

Glandular therapy, in twenty-four cases of peptic ulcer has shown spectacular end-results, with clinical recovery up to three and one-half years.

Vascular hypotension suggests endocrine etiology of peptic ulcer favoring formation of hypothetical circulatory depressor toxin with selective affinity for the gastrointestinal mucosa.

Administration of interstitial hormone gives spectacular therapeutic reactions if given in its fresh or nascent state.

In asthenic and allied states, with torpid metabolism, glandular therapy appears to act by homostimulation, suggesting the appellation of the "vital gyroscope".

Interstitial hormone or serum is efficient in functional defects, and is patently the most powerful regulatory hormone of the endocrine group.

Discussion

Dr. John F. Herrick, Ottumwa—I do not know that I quite understand just the method of preparation of the product that Dr. Ritter had in mind or that he is using, and which he spoke of as the interstitial preparation. I would ask the essayist in his closing discussion to be more specific as to what he is using. There is no question but that the study of physiological medicine and the elementary physiological processes is most important. We have been treating end results by awkward and sometimes very inefficient methods. We should go back to the physiological reasons for these things. There are two important factors that have been entirely forgotten by many: The autonomic nervous system and the glandular system. There is a general plan of the human body we do not always think of. The great mass of the body is what we sometimes speak of as a proficient system. The skeleton is not necessary to life, the voluntary muscles are not necessary to life, the cerebrospinal nervous system is not necessary to life. It is the vital organs—the respiratory system, the circulatory system, the autonomic nervous system, and the glandular system—to which we must in future give our attention if we would prevent or cure disease. I would again ask Dr. Ritter to give us more definite information as to what he is using and how it is prepared.

Dr. Ritter (closing)—In regard to the preparation of the product I am using as a menstrum, it is a very simple matter. It is called the interstitial hormone or serum, and is taken either from the

testicle or the ovary. The spectacular results I have been getting in the last five years are absolutely unbelievable. Merely as an illustration I will cite the following case: Recently a man came to me who for four years had been receiving treatment for pernicious anemia. After a crude examination, it impressed me as a peculiar case of pernicious anemia. Making a blood count, there were 4,300,000 red cells and 28,400 whites, which would seem to throw it into the leukemic group. I was keen to see if a favorable reaction would occur, and administered straight interstitial serum from a male goat before the age of puberty. One week later a second treatment was given and on the tenth day, a second blood count showed 15,000 whites. He was given his third treatment and permitted to return home. Last Monday, the twentieth day, the blood count showed only 11,400 whites and 4,470,000 reds. I told him I did not know how far improvement would continue, but the improvement was decidedly encouraging. There is something coming up nearly every week that is entirely extraneous to the work on vascular hypertension I have been doing for the last five years. As a result, my attitude is entirely tentative, and I need your assistance to determine whether I am seeing visions and dreaming dreams, or whether the treatment I have outlined is an actual advance in the line of physiological medicine.

IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines

Commissioner, State Department of Health

PREVALENCE OF COMMUNICABLE DISEASE

There has been no material change in the prevalence of communicable diseases in Iowa during the past month except for a rapid diminution of our pandemic of influenza.

Influenza still prevails in many places in the state—appearing in epidemic form in certain communities which were not visited by an epidemic of the disease a few months ago. There seems little doubt but that we experienced, this year, the most extensive epidemic of this disease since the severe epidemic of 1918.

The recent epidemic was by no means of the severe type as that witnessed during the war. In the 1918 epidemic, the specific "flu" germ was accompanied in many cases by a hemolytic streptococcus infection. It was the latter organism that caused most of the complications and fatalities.

PUBLIC HEALTH PUBLICITY

Whenever influenza or any other epidemic makes its appearance in a community, it is advisable for physicians as organizations, without making use of individual physician's names, to

warn the public of the disease and suggest precautions that should be taken to prevent the spread of the disease. In communities where there is a full time health officer who is responsive to the wishes of the medical profession, the profession usually finds it advisable to have such officer give out publicity material. In such cases there is, of course, no objection to the use of the name since it is not used to promote private practice. The use of the name, indicating responsibility for the thoughts expressed, always adds to the effectiveness.

The need of giving the public authoritative information about the prevention of disease is desirable not only as a part of a general obligation but also to prevent the public from accepting false conceptions of disease and improper methods of treatment.

REPORTING OF CASES

We do not, by any means, receive reports of all cases of communicable diseases. This is due primarily to a lack of efficient organization of our health departments. This applies to the state department as well as most of the local ones. There are only two cities in Iowa that have full time local health officers.

Failure to promptly report all cases of communicable diseases makes it difficult to effectively check outbreaks of diseases at their incipency. Failure to report all cases can also make a poor showing for the work of the physicians of Iowa.

Reports of deaths are reasonably accurate. If all cases are not reported, the mortality per cases reported will be proportionately higher than it should be.

The law requires that cases of communicable and other notifiable diseases be reported to the local board of health and the local board in turn report such to the state department.

Much confusion has resulted from lack of designation as to which official of the local board of health should receive the reports. Many cases are being reported to the clerk. From the standpoint of effective control of communicable diseases in a community, they should be reported to the local health officer.

ADDITIONAL CLAUSES ADDED TO MALPRACTICE PROTECTIVE CONTRACT

Effective May 1, 1928, under every contract in force on that date this company agrees to provide, without additional premium, the following additional clauses:

C-1. Against any claim or suit for damages for

assault, slander, libel, undue familiarity, anaesthesia hallucination, personal restraint, malicious prosecution, replevin of property, or any other claim or suit for damages alleging a breach of professional duty.

C-2. Against any claim or suit for return of professional fees.

These clauses are backed by both the defense and indemnity agreements of our contract.

Twenty odd years ago we presented our present malpractice protective contract which has never been entirely duplicated by any organization. In providing protection for some of the additional vexations in your profession, without charge to you, we believe we are discharging some of our responsibilities for the faith you and the majority of your colleagues have had in us.

Simply file this communication with your contract as your record of the additional protection effective May 1st. A new contract with the clauses incorporated will be presented at or about your renewal date.

The Medical Protective Company,
Byron H. Somers, President.

NOTES ON NORWEGIAN OPHTHALMOLOGY, ESPECIALLY ON THE DIAGNOSIS AND TREATMENT OF GLAUCOMA PATIENTS

Professor Hagen has found the intraocular pressure curve of the greatest practical importance in diagnosis and treatment of glaucoma.

There are daily variations in pressure. The maximal pressure occurs in the morning and the minimum in the evening. In the "inverse type" the pressure is highest in the evening. The curves for both eyes follow one another in an almost parallel course.

In the early stages of glaucoma the whole pressure curve often is below the limit of the normal tension. Yet the typical daily variations prove the presence of glaucoma.

The pressure in the normal eye may also vary, but very slightly.

In treatment of glaucoma the pressure curve is also of importance. It is of great practical importance to be able to demonstrate the effect of myotics on the pressure curve. Failure to obtain a completely satisfactory effect from myotics is an indication for operation or at any rate for frequent and careful observation of the patient so as not to risk postponing the operation too long.

As to the method of operation, Holth's extralimbal tangential punch forceps sclerectomy is preferred in chronic glaucoma. By this method the risk of late infection is reduced. A smooth scar with normal tension is quite common after this operation.

The routine taking of the pressure curve is described and a brief outline of the technic of Holth's operation included.—Sigurd Hagen, International Clinics, December, 1927.

The Journal of the Iowa State Medical Society

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Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVIII June, 1928 No. 6

THE PRECEPTOR IN MEDICAL EDUCATION

When the writer began the study of medicine more than sixty years ago, the preceptor was in his glory and occupied the first place in medical education. It was recognized that a medical student should take at least two courses of didactic lectures, generally of sixteen weeks each, at some medical school before engaging in the practice of medicine. The village doctor who had become established in practice was regarded as a leading and influential citizen regardless of wealth, and his social position was often an inspiration to the ambitious and studious young man to become a doctor.

The general plan was for the young man to select the practitioner with whom he desired to study and arrange the terms. Sometimes it was arranged for the young man to enter the family of his preceptor or to become an office student and secure board near his preceptor, or to live at home, if near by; coming to his preceptor's office to recite at stated periods. As soon as terms were arranged the preceptor assigned a number of text-book pages and thus the process of medical education began. The most desirable plan was to live in the preceptor's family or to live in a family near by. It must be remembered that a home and family life was quite different than at the present day. The well-to-do people lived in large houses with many rooms, with accommodations for additional members. The close relation

of the student and his preceptor made it convenient and possible for the student to assist his preceptor in emergency cases or to go with him on his rounds of practice and in suitable cases to make personal examinations. In those days the doctor carried his medicine and the student could sit by and see the medicine dealt out. After the doctor and his student left the patient, the nature of the case, the nature of the medicine and the examinations were talked over. Sometimes several patients were visited in one day and made a very good clinic. There was very little doubt in the mind of the practitioner about the efficacy of drugs. There were no tablets or special preparations and the amount of the drug was determined by skillful guessing. The liquid medicines were mostly in the form of tinctures, which were dealt out by counting drops or by the teaspoon.

The personal attitude of the preceptor toward his patient gave the student a good understanding of the elements of success with popular doctors.

There were accidents and injuries where the student was useful to his preceptor and of clinical advantage to the student.

The personal contact with a refined and cultured family was of great social advantage to the student and helpful in his future relations to his patients.

After the student had studied in his preceptor's office about one year, the question of a course of medical lectures came up for consideration. When the school was decided upon, the student packed a few books and departed for a sixteen weeks' course of study. There was but little time for reading and text-book study. Three hours of lectures in the morning, and three hours in the afternoon. There were no laboratories, no microscopes, no scientific apparatus, except a few weeks in the dissecting room, in the evening. Many schools had what was called a chemical laboratory where students could make a few clinical tests, but this was optional except at the University of Michigan, where a six weeks' course was required for graduation. This was difficult, for the chemical laboratory was primarily for students in pharmacy and in science courses, and as admission was in order of registration for this course, it was necessary to register a year in advance.

None of the medical schools had hospital facilities except by courtesy, and only occasionally did we see either a medical or surgical case. At the end of sixteen weeks (at Ann Arbor twenty-four weeks), we returned to our preceptor's office with an accumulated fund of rather ques-

tionable stories and a beginning beard. We returned probably with an increased assurance in our knowledge of medicine. This was due in part to the dogmatic attitude of the professors. We had no doubt but what was heard was absolutely true but which gradually faded as we made our rounds with our preceptor, who showed many cases which looked quite different from the picture presented in the lecture room. Thus perhaps one or two years passed, when it finally came to the last course, which was nearly the same as the first. The same old manuscript lectures came out which, perhaps, were the same as used for many years. There was the thesis and the reviews and the examinations and the graduation. Some students had the advantage of a third course, but the third course was practically the same as the first two. Before graduation we were required to present a certificate that we had studied medicine and surgery with Dr. A. (our preceptor) for a period of three years, including at least two courses of lectures.

This is an outline of the study of medicine sixty years ago; it is the preparation of the disappearing family doctor of which we have said so much. It was to the preceptor idea that the "Old Family Doctor" owed nearly all the valuable clinical knowledge he possessed.

Many of the old time medical schools were located in small towns. It was the policy of these schools to secure some famous doctor as a drawing card, who perhaps lectured in several schools and the courses of lectures were so arranged as to make this possible. The popular professor was the eloquent speaker who cultivated this gift. The compensation the professor received came from student fees and special fees received from patients who availed themselves of the skill of the famous professor during his itinerary. The college fees varied from \$25 to \$75 for the term of lectures. In the larger cities perhaps as high as \$100 or \$150. There was some prestige in graduating from a large city school. After the non-resident professors had been paid and the necessary expenses had been deducted, the remainder of the fees—if any—were divided among the promoters of the school, whose chief gain was in the reputation of being a professor, in increased practice.

The preceptor principle is still recognized as an important feature in medical education as seen in the growing practice of establishing local clinics.

Our attention has been called to an old time feature in medical education in the preceptorial relation of the medical student by Dean Bar-

deen, of the University of Wisconsin, at a recent A. M. A. council meeting on medical education discussing "Modern Preceptorship".

This discussion appears in the Nebraska State Medical Journal for April, 1928. Inasmuch as we are familiar with the fundamental facts, both as a preceptorial student and professor, we have reviewed the subject as furnishing a background to Dean Bardeen's discussion.

"In order to understand this return swing of the pendulum one must review this most remarkable advance of medical education in the past three or four decades. It is conceded to be the greatest advance in any field of modern education. Going back about four or five decades one finds the preceptor providing all of the practical instruction and most of the guidance in book work. Then so-called medical schools were organized where a course of lectures was given. These came to have such commercial value, directly and indirectly, that by two and one-half decades ago there were 166 schools graduating 5,700 doctors annually and the preceptor had about disappeared. Then came the standardization work of the A. M. A. with Flexner's survey of medical schools and the rest of that remarkable reorganization. The resultant rating and classification brought about many consolidations, many closures, and a general unprofitableness of medical schools from a commercial viewpoint. At this point affiliation with great teaching universities and colleges was sought and obtained, with full time professors being added in more and more departments, until the complete removal of the teaching doctor or practitioner was threatened. Full time professors of surgery and medicine are still talked of and used in some places but the pendulum has certainly begun to swing back. Medical teaching not only cannot be taken out of the hands of the practicing specialists and clinicians but the recent appearance of the term "Modern Preceptorship" seems to indicate that even the general practitioner has something worth while to teach about the art of the practice of medicine.

"Bardeen's subject related to the value of associate teaching centers in clinical teaching. The Wisconsin University has adopted a plan of sending students to certain carefully selected hospitals and groups of practicing doctors for the purpose of actual practice experience. A review of their reports to Dean Bardeen of the work and experiences was most interesting. Many believed it was the most interesting and profitable three months of their entire four years.

"But the preceptorship was profitable not

alone to the medical student. It was most helpful also to those doctors serving as preceptors. These senior students had a wonderful fund of scientific medical knowledge but lacked a little practical ability to draw upon it. The preceptor could help do this and incidentally add materially to his own fund of information. The senior student knew also how to get quickly information from the literature which they both lacked and again a mutual benefit.

"A further purpose relating to this modern preceptorship was to extend these same services to isolated general practitioners of near-by communities who might feel the need of such helpful contact. It was to be arranged at such times as the isolated doctor could arrange a week away from his own busy practice.

"In this return swing of the pendulum toward preceptorship we see not only history repeating itself, and another aid to medical education, but also something of a return of the dignity and honor so justly due the general practice man, which for a decade or more has seemed to be on the wane."

THE NEW ENGLAND JOURNAL OF MEDICINE

At the close of one hundred years of service to the profession of New England, the Boston Medical and Surgical Journal reviews early journalism in Boston and retires in the interest of the New England Journal of Medicine.

It appears that in 1812 a group of five men, including Dr. John Collins Warren, the elder, Dr. James Jackson, Dr. John Gorham, Dr. Jacob Bigelow and Dr. Walter Channing, established the New England Journal of Medicine and Surgery. In 1823 another journal was founded called the Boston Medical Intelligencer—a weekly journal. In 1828 these two journals consolidated under the name of the Boston Medical and Surgical Journal, which was published without interruption for 100 years, and in 1928, to become more distinctly a New England medical magazine, changed its name to the New England Journal of Medicine, now the official organ of the Massachusetts Medical Society, the New Hampshire Medical Society, the Vermont Medical Society, the New England Surgical Society, the Boston Surgical Society, Inc., the New England Pediatric Society and the New Hampshire Surgical Club.

It only needs Maine, Rhode Island—which states publish journals of their own—and Con-

necticut to include all that group of states known as New England.

The New England Journal of Medicine entered upon a new era of usefulness February 23, 1928.

JOHN HUNTER—MAN OF SCIENCE AND SURGEON

The present year marks the two hundredth anniversary of the birth of one of the greatest surgeons of all time, John Hunter. The name of this truth seeker has been associated with that of Pare and Lister in the field of surgical progress. Hunter was distinguished as a human anatomist, comparative anatomist and physiologist, in addition to being the founder of scientific surgery in England. At the Lister Centenary last year the president of the Royal College of Surgeons, Sir Berkeley Moynihan, bracketed the names of Hunter and Lister, saying that they stood apart from all other men by reason of the innumerable gifts which they had conferred on mankind. Garrison has remarked in his History of Medicine that Hunter's permanent position in science is based on the fact that he was the founder of experimental and surgical pathology and a pioneer in comparative physiology and experimental morphology. Consequently Hunter may properly be regarded as "one of the great all-around biologists like Haller and Johannes Muller". Sir James Paget wrote that Hunter's mind was set on science, while his business was practical surgery. Thus, as Paget further reminds us, Hunter's mind, given to science, was engaged in practice; he associated surgery with science, and made them mutually illustrative. Before his time, surgeons had been "empirical"; this word had been used in its real sense of "experimental", but as meaning something discreditable, something not founded on "principles". Yet these "principles" were only thoughts exercised on sufficient facts, gradually but slowly becoming more nearly sure, but hardly applicable from one century to the next. The man's influence on modern thought and practice is reflected in the character of his pupils. Among the more famous were Astley Cooper, Abernathy, Physick, Thomson, Cline—who had the spirit of Hunter. One of the first of these pupils was Edward Jenner, who became a resident pupil as early as 1770, when he was but twenty-one, and lived two years in Hunter's house. Less generally known is the fact that Hunter was the first to study the teeth in a scientific manner, and first to recommend complete removal of the pulp in filling them. Orthodontic procedure in malocclusion was not unknown to him. The Hunterian Museum with the thousands of specimens that he collected, marked another side of his multifarious activities. Thus one can better appreciate Stephen Paget's estimate of John Hunter. The whole output of his working life, he wrote, is four-fold—literary, surgical, anatomic, physiologic and experimental; but the multiplication

together of these factors does not give the whole result of his work. He brought surgery into closer touch with science. Contrast him with Ambrose Pare, a surgeon in some ways like him, shrewd, observant, ahead of his age; the achievements of Pare, side by side with those of Hunter, are like child's play in comparison with the serious affairs of men; Pare advanced the art of surgery but Hunter taught the science of it.—Jour. A. M. A.

LICENSE REVOKED

On the twenty-third day of April, 1928, the license of Dr. Weymouth L. Swainson, to practice medicine in Iowa, was revoked. The basis of revocation of the license was that he had secured the license by fraud.

The fraud in procuring the license consists of the following three items:

1. Admitted to Meharry Medical College, Nashville, Tennessee, upon presentation of certificate or letter signed by Augustus S. Downing, assistant commissioner and director of professional education, Albany, New York, which it is alleged was fraudulent.

2. Was admitted to the senior class at Meharry Medical College, and graduated. His application shows that he attended this medical college four years, but college reports he attended senior year only.

3. Application shows that he served one year of internship at Mercy Hospital, Philadelphia, Pennsylvania, but report and letter from superintendent of said hospital do not show this to be a fact.

He is the same person referred to on page 332 of the November, 1927, Bulletin published by the Federation of State Medical Boards.

Henry Albert, M.D.,
Commissioner.

EXHIBIT OF PAMPHLETS AND BULLETINS FOR THE MEDICAL AND HEALTH EDUCATION OF THE PUBLIC

The material here displayed was sent to the Bureau of Health and Public Instruction of the American Medical Association by the several state boards of health and the volunteer medical organizations who were invited to attend the Conference arranged by the American Medical Association in March, 1927. A brief comment was made on these pamphlets at that Conference, but lack of time precluded any consideration or discussion of the matter by those attending.

The material is here arranged to show:

1. A sample of the pamphlets, reports and bulletins issued by each of the agencies represented; a list of those published by each organization, and a statement of the plan and method of distribution.

2. A second set of pamphlets is arranged by subjects to show those which have been issued by the several agencies in each field.

Each person attending this Conference is requested to make a brief survey of this material and to answer the enclosed questionnaire.

It is the opinion of many persons who are interested in the medical and health education of the public that there is room for improvement in the character of the health material issued to the laity as to subject matter, attractiveness, readability and in other respects. This collection may serve as the basis for a helpful study and discussion.

QUESTIONNAIRE

1. Does there seem to be duplication of material which might be amended with resulting saving in cost and improvement in quality and effectiveness of some of the articles?

2. Would a careful study of this material by a suitable group of experts be worth while?

3. If so, would you think such a study, leading to a report to be presented at such a Conference as is now being held, could be made to best advantage by

(a.) An individual? (If so, whom would you suggest?)

(or b.) A committee of three or five persons, including a public health man, a publicity expert, a physician, a sociologist, and perhaps representatives of other groups? (Suggest other groups which you think should be represented and, if you so desire, mention individuals whom you regard as especially competent to undertake such a study.

THE COMMITTEE ON THE COST OF MEDICAL CARE

Until July 1, 1932, this committee, with the aid of various cooperating agencies, will be studying the cost and adequacy of medical care, the expense to the community of hospitals and clinics and the return accruing to the physician, the dentist, the nurse and other agents.

The committee does not and cannot foresee the results of its studies. For five years, however, it will be engaged in seeking facts in the present confused situation. As these facts become available, they will be published in a series of reports. Later, there will be issued a summary together with recommendations based, not on opinions, but on the facts.

The five-year program of studies will be available in a few days to a limited number of physicians, sanitarians, and other interested persons. Would you like to receive a copy?

After examining the program, will you not write us your opinion as to the desirability and relative importance of the studies?

Sincerely,

Ray Lyman Wilbur,
Chairman.

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SOME REMARKS ON STETHOSCOPY

Bing emphasizes the fact that when pneumonia is complicated by pleuritis the diseased side arches somewhat outward and the intercostal furrow is eliminated. As the pleuritis is absorbed the side falls in.

By marking the boundary of the heart, that is the total heart dullness, by percussion, you may be able day by day to follow how under correct treatment a dilatation to the right shrinks to normal, that is, reaches a little outside the right edge of the sternum.

In all cases where there are not very marked changes in the lungs, the patient should be examined in the sitting posture.

Bing emphasizes the fact that even by fairly slight percussion the whole lung may be set in motion.

The percussion beat is spread especially in the direction in which one makes the percussion. The recognition of this principle is of special value when using slight percussion.

The strength of the percussion beat is also of importance. By quite slight percussion only those waves lying nearest the direction wave are perceived, while the waves radiating out to the other sides and not hitting the heart do not reach at all to the perception. The direction wave is dulled by striking the heart. The pressure of the plessimeter finger is also of importance.

Supposing that the integuments covering the lung gradually become thicker to the right, one will at slight percussion in this direction by and by get a more dull sound, because the force of the beat will to a greater and greater degree be swallowed up by the integuments.

The author describes the situation of the lungs relative to the surface. The plessimeter finger must be placed in as exact a position as possible, by placing the pulp of the hyper-extended third finger in the place that is to be examined, and then striking on the basal part of the third phalanx.

It is important always to hit the same place on the finger.

Generally a dullness due to swelling of a bronchial gland can only be pointed out on the right side where the bronchial glands are found in greater numbers and where they lie higher up than on the left side. If one fixes Kronig's borders and makes use of the breadth of the isthmus as a means of estimating whether there is infiltration of the apex, one may be led to a wrong result.—H. I. Bing, International Clinics, December, 1927.

SOCIETY PROCEEDINGS

Calhoun County Medical Society

The April meeting of the Calhoun County Medical Society was held at Lohrville. The scientific program was furnished by physicians from Carroll county as follows:

Malta Fever, with a report of two cases, Dr. H. R. Pascoe, Carroll.

Primary Peritonitis, case with ante and post-mortem findings, Dr. L. W. Chain, Dedham.

Osteomyelitis—A case demonstration, Dr. F. V. Hibbs, Carroll.

Cerebeller Abscess (report of a case), Dr. L. W. McConkie, Carroll.

The meeting was well attended by the Calhoun profession and in addition to the Carroll delegation, Doctors Bowen, Clesne, Stahr and Shrader of Fort Dodge were present. The meeting was the first attempt in the nature of a clinico-pathological conference and was voted a success.

P. W. Van Metre, M.D., Sec'y.

Cerro Gordo County Medical Society

The Cerro Gordo County Medical Society meeting was held Monday, April 16, at the Eadmar Hotel, Mason City. At 6:30 p. m. a banquet was held, followed by a lantern slide lecture by Dr. N. L. Alcock, urologist of Iowa City. Subject was Importance of X-ray in Diagnosis of Kidney Conditions.

Forty members of the society were present besides fifteen guests from surrounding cities.

Johnson County Medical Society

The Johnson County Medical Society met in regular monthly meeting at Iowa City, April 4th. Over fifty members were present.

The society has an unique position in the state, owing to the location here of the State University of Iowa College of Medicine. The society recognizes its responsibility to the state which arises out of this situation. The internes, clinical assistants and men holding teaching positions at the present time, who may later go into practice in the state, are often not greatly interested in the work of the county society. When they finish their preparation of training and go into active practice, these men should affiliate themselves with their county organization, wherever they may locate.

In order to emphasize to these men the value of the county medical society and consequently the state and national organization, the society has availed themselves of the opportunity, made possible by liberal interpretation of the constitution and by-laws of the State Medical Society, through its officers, and have arranged to admit these men to the local organization, although some of them have not yet secured their license to practice. It is hoped that in so doing, the value of the affiliation with the local and state organizations and the value of intercourse with their fellow-practitioners, may be made

so outstanding that they will continue their relation after leaving their training period. It is in the nature of a scientific experiment and the results will be watched with interest.

The program of the evening was given by Dr. Houghton, dean of the College of Medicine, who spoke on the Problems of Medical Education in Iowa. It is to be hoped that many of the county societies will have the opportunity of hearing Dr. Houghton's clear, concise, analysis of the problems which must be solved by the board of education and the administration of the College of Medicine, in maintaining a Class A medical school in this state.

The technical paper of the evening was given by Dr. Arthur Steindler on the subject, When to and When not to Operate on Tuberculous Spines. Dr. Steindler's paper showed a broad conception of the disease which manifests itself locally in the destruction of the vertebrae.

Announcement was made to the society that the programs for the year are completed. The meeting to be held July 11th, will be addressed by Dr. Gordon New of Rochester, Minnesota. The otolaryngologists of the state, especially, are invited to attend this meeting.

Geo. C. Albright, Sec'y.

Linn County Medical Society

The Linn County Medical Society meeting was held Thursday, April 26, 1928, at the Montrose Hotel, Cedar Rapids.

The program was as follows:

The Infected Prostate, by Dr. W. H. Von Yackum, Mayo Clinic, Rochester, Minnesota.

Annual election of officers.

Hosts—Dr. W. J. Morrison and Dr. John Hamilton.

Marion County Medical Society

The regular April meeting was held at Knoxville, Friday, April 13, 1928.

In the morning and afternoon a chest and heart clinic at the Woman's Club House was conducted by Dr. John H. Peck, Des Moines, president Iowa Tuberculosis Association, and Dr. Merrill M. Myers, Des Moines, president Iowa Heart Association.

Supper at 6 o'clock at Buckles Cafe.

The evening program was at the court house, 7:30 p. m.

Business meeting.

Address—Diagnostic Problems in Chronic Pulmonary Diseases, Dr. John H. Peck, Des Moines.

Address—Angina Pectoris and Coronary Occlusion with Special Reference to Their Diagnoses, Dr. Merrill M. Myers, Des Moines.

C. S. Cornell, M.D., Sec'y.

Marshall County Medical Society

Dr. John H. Peck and Dr. Merrill M. Myers, of Des Moines, under the auspices of the Marshall County Medical Society, conducted a lung and heart clinic at Marshalltown, May 1st. Following the

clinic the members of the society and guests joined in a 6:30 society dinner at the Pilgrim Hotel. Following came an illustrated discussion on tuberculosis by Dr. Peck and on heart conditions by Dr. Myers.

Pottawattamie County Medical Society

The Pottawattamie County Medical Society met at the Chieftain Hotel, Council Bluffs, Iowa, Thursday, April 12, 1928.

The program followed a 6:30 dinner.

Modern Surgical Treatment of Diseases of the Thyroid Gland—F. E. Bellinger, M.D., Council Bluffs.

Discussion opened by M. E. O'Keefe, M.D.

Management of Obstetrics with Special Reference to Narcosis—Dr. Erickson-Hill, Council Bluffs.

Discussion opened by F. E. Bellinger, M.D.

Woodbury County Medical Society

The regular April meeting of the Woodbury County Medical Society was held at the Hotel Jackson, Sioux City, Friday, the 27th.

Forty members were present.

The meeting was called to order by Dr. Dean.

The minutes of the preceding meeting read and approved.

The chair offered the suggestion that the delegates be elected to serve two years, electing one new delegate each year. Motion was so made by Dr. Henkin and carried.

Dr. Vangness nominated Dr. Katherman.

Dr. Katherman nominated Dr. Wm. Jepson.

After some polite exchanges between Dr. Katherman and Dr. Jepson, Dr. Henkin moved that Dr. Wm. Jepson be appointed delegate for one year and Dr. Katherman for two years. Motion seconded and carried.

Alternates—Dr. Swanson nominated Dr. Nervig. Dr. McHugh nominated Dr. Bellaire. Both unanimously elected to serve one year.

Dr. Van Es of Lincoln gave a very interesting talk upon animal pathology.

Dr. Lohead of Rochester, Minnesota, spoke of the relation between the medical profession and public health.

Dr. J. M. Thompson of Lincoln, Nebraska, spoke in place of Dr. Orr. His subject was "The Non-Antiseptic Treatment of Compound Fractures. Following his paper he showed many interesting lantern slides.

Northwestern Iowa Medical Society

The Northwestern Iowa Medical Society met at Sheldon, Iowa, Wednesday evening, April 25.

The meeting was presided over by the president, A. J. Meyer, M.D., of Hawarden.

There were visiting physicians present from Minnesota, South Dakota, and Plymouth county, Iowa.

The president of the Southwestern Minnesota Medical Society personally invited the members of

our society to attend their coming meeting at Worthington, Minnesota, on the evening of May 10.

The president of the Sioux Valley Medical Society announced the coming meeting of that society at Sioux Falls for June 27.

The scientific program was rendered as announced in the program:

Goat's Milk in Infant Feeding—T. D. Kas, M.D.

Goiter: Classification and Diagnosis—T. J. Billion, M.D., Sioux Falls; Cardiac Complications—C. Wm. Forsberg, M.D., Sioux Falls.

President's Address—A. J. Meyer, M.D.

Difficult Obstetrics—L. L. Corcoran, M.D.

Status of the General Practitioner—A. P. Stewart, M.D.

There was an extensive discussion of the evils resulting from the Haskell-Klaus, Perkins and Workmen's Compensation acts. Steps were taken to use our influence to secure modification of those laws through cooperation of the State Medical Society and the legislature. No resolutions were offered or passed.

There was no banquet but a lunch was served following the meeting.

Attendance forty.

The next meeting of the society is scheduled to be held at Sheldon in October.

The Northwestern Iowa Medical Society includes the counties of Lyon, O'Brien, Osceola, and Sioux, and every legally registered physician in those counties who is in good moral and professional standing, and who does not support, or practice, any exclusive system of medicine, is eligible to membership.

Officers—A. J. Meyer, Hawarden, president; H. L. Avery, Primghar, vice-president; Jay M. Crowley, Rock Rapids, secretary; L. L. Corcoran, Rock Rapids, treasurer.

Censors—P. I. Dahl, 1925; A. J. Meyer, 1926; J. A. Wagner, 1927; D. G. Lass, 1928.

Committees—Local arrangements—G. E. Vermeer. Membership—L. L. Corcoran, H. J. Brackney, F. P. Winkler, A. J. Meyer. J. M. Crowley, Sec'y.

Iowa Heart Association

Dr. Merrill M. Myers of Des Moines was elected president of the Iowa Heart Association at its fourth annual meeting held at Cedar Rapids, Iowa, May 11. Other officers are Dr. Fred M. Smith, Iowa City, vice-president; T. J. Edmonds, Des Moines, secretary; executive committee, Dr. Walter L. Biering, Des Moines, chairman; Dr. V. L. Treynor, Council Bluffs; Dr. L. R. Woodward, Mason City; Dr. A. D. Woods, State Center; Dr. J. L. Coontz, Garden Grove; ex-officio members, Dr. Henry Albert, state commissioner of health; Dr. John H. Peck, president of the Iowa Tuberculosis Association.

Dr. Kennon Dunham of Cincinnati addressed the meeting on The Prevention of Heart Disease is as Essential as the Prevention of Tuberculosis, and Dr. Horace M. Korn, Iowa City, on The Early Diag-

nosis of Syphilitic Aortitis. Dr. E. H. Lauer, director of the extension division spoke about the post graduate course in heart and lung diseases which will be held at the College of Medicine at the State University of Iowa, June 5 to 8. Dr. Myers made a report of the year's work.

Iowa Clinical Medical Society

At the annual meeting of the Iowa Clinical Medical Society at Ottumwa on March 23, the following officers were elected: President, Dr. Russell C. Doolittle, Des Moines; vice-president, Dr. Leroy Woodward, Mason City; secretary-treasurer, Dr. C. W. Baldridge, University of Iowa.

MEDICAL NEWS NOTES

A display of steel hospital furniture was featured early in May at the Du Pont Products exhibit on the boardwalk at Atlantic City and attracted wide attention. The set consists of a bed, dresser, table, screen, costumer, chair, rocker, footstool, waste basket and adjustable bedside table. The pieces are finished in duco, the color being smoked American walnut with gold stripe. They were displayed in a large boardwalk window at the front of the exhibit. The furniture was made by H. D. Dougherty & Co. of Philadelphia.

The Cincinnati Academy of Medicine has appointed a committee to extend an invitation to the American Medical Association to hold its 1929 session at Cincinnati.

PERSONAL MENTION

Dr. Mark F. Boyd, formerly connected with the department of pathology and bacteriology of the University of Iowa but for the past eight years connected with the International Health Board doing special malaria work, has been invited to become a member of the Malaria Commission of the Health Section of the League of Nations. This recognition of his ability and standing is very pleasing to many of his Iowa friends. Dr. Boyd's permanent quarters are located at Edenton, North Carolina. During the past three months he has conducted a special malaria survey on the Island of Jamaica. He leaves June 2nd for Naples, Italy, in connection with the special malaria work in Italy and later will attend the meeting of the Malaria Commission of the League of Nations at Geneva.

Dr. Frank C. Titzel, an Iowa City physician and a graduate of the College of Medicine and Law at the University of Iowa, was nominated at the second district democratic caucus held at Des Moines, April 20th, as a candidate for congress.

Dr. O. W. Lowery celebrated his eighty-third birthday April 29. For many years Dr. Lowery practiced at Grand Junction, Iowa. He is a veteran of the Civil War and offered his services for the

World War. Dr. Lowery is an active member of the Polk County and State Medical Societies.

Col. D. S. Fairchild, Jr., wife and son David, sailed May 12, on the S. S. Minnekada for Bologne, France, and will visit France, Italy, Germany, Belgium and return via Liverpool on the S. S. Belegland, August 20th. After completing this itinerary Col. Fairchild's family will make their headquarters at Geneva or some point on the coast of Brittany, from which they will make trips into England or other convenient or desirable places. Col. Fairchild will return about July 1st to take up extensive field service activities at Niatic, Connecticut. After this he will take up the work in his new assignment at Columbus, Ohio, September 1, 1928, in the Fifth Corps area, including West Virginia, Kentucky, Indiana and Ohio, at Fort Hayes, Columbus. Col. Fairchild will have an opportunity to compare crossing the ocean in 1928 with late in 1914 and again in 1917, when he crossed with his division as a soldier in the war with Germany, when submarines were the terror of the seas.

Dr. George Braunlich, of Davenport, has been appointed city physician.

Three of the oldest physicians in Scott county were given a dinner at the Outing Club at Davenport by members of the Scott County Medical Society April 19, 1928, in honor of their long and loyal services to the public and to the profession. The three physicians thus honored were Dr. A. W. Elmer, Dr. Henry Braunlich and Dr. W. L. Allen. Dr. F. Lambach serving as toastmaster. A condition of membership in this honorable group is at least forty years of medical service.

The Des Moines Tribune-Capital for May 3 presents an illustrated description of the new \$1,000,000 United States Veterans' Hospital at Tucson, Arizona, under Dr. W. D. McFaul as commanding officer. Dr. McFaul practiced at Clinton and Miles. When the United States entered the war with Germany, Dr. McFaul enlisted in the medical service and at the close of the war remained in the service and was assigned as C. O. for the Veterans' Hospital at Tucson, Arizona. Dr. McFaul is a graduate of Drake University School of Medicine.

Dr. O. B. Chandler, formerly of Pueblo, Colorado, has joined the New Hampton clinic as x-ray specialist.

Dr. S. William Hartwell of Boston, has been employed by the city of Des Moines to have charge of the Bureau of Juvenile Psychology.

Dr. A. M. Pederson of Ruskin, Nebraska, has located in Avoca for the practice of medicine. Dr. Pederson is a graduate from the University of Nebraska Medical School.

Dr. Paul Bartsch, formerly of Burlington, has been awarded the Walton Rathbone Bacon research fellowship by the Smithsonian Institute for the years 1928-30. He is curator of Mollusks in the Smithsonian Institute.

It is reported that Dr. Royal C. Danley has purchased the Hamburg Hospital.

Dr. E. D. Taylor has recently opened an office in Davenport for the treatment of diseases of the eye, ear, nose and throat. Dr. Taylor is a graduate of Rush Medical College, with a year in special work.

Dr. Robert E. Neff, administrator of the Indiana State University Hospital, has accepted a similar position at the Iowa State University Hospital.

Dr. Guy T. McCauliff of Webster City, has accepted the position of chief surgeon at the Lutheran Hospital, Hampton, Iowa.

MARRIAGES

Dr. Warren H. Foster of Clinton and Miss Margaret Leslie of Clinton, were married in Cedar Rapids, December 25, 1927.

Dr. Foster is a graduate of Iowa State University.

OBITUARY

Dr. Max G. Schlaff, a distinguished neurologist and criminologist of New York, died at the Post Graduate Hospital, New York, March 1, 1928. Dr. Schlaff was born in Fort Madison, where he received his early education.

Dr. J. M. Young of Cedar Rapids died Tuesday morning, February 28, 1928. Dr. Young was born at Center Junction August 29, 1875, was educated in the public schools of Center Junction and graduated from Epworth Seminary in Dubuque, 1899. In that year he began the study of medicine and graduated from the Iowa State University 1903. He began practice at Center Junction immediately after graduating. Dr. Young removed to Cedar Rapids in June, 1926, where he practiced until the time of his death. He was a member of the Jones County Medical Society and of the American Medical Association and also a member of the Iowa Union Medical Society. August 19, 1903, he married Miss Alice Dawson of Center Junction, who, with three children, survive him.

Dr. Charles P. Bowen, of Centerville, died at his home March 6, 1928. Dr. Bowen was born at Centerville, November 16, 1868. In 1906 he married Miss Martha Odekirk, who survives him. At one time he practiced with Dr. J. L. Sawyer.

Dr. F. W. Horton, of Sanborn, died at his home March 3, 1928, at the age of fifty-three years, eight months and four days. Dr. Horton was born at Ft. Atkinson, Iowa, November 7, 1870. He received his education at the public schools of Volga and Belmond, Iowa, graduated from the latter 1889. Graduated from the medical school of the Iowa State University 1894 and located in Sanborn, where he practiced thirty-four years. He was surgeon for the C. M. & St. P. Ry. Co. September 17, 1895, Dr. Horton married Harriet May Shriveley at Iowa City, who survives him.

Sir William Dawson was editor of the British Medical Journal from 1898 to January 21, 1928, died one month after his retirement, February 27, 1928, at the age of seventy-four years.

Sir William had a taste for journalism, and after working on the editorial staff of the British Medical Journal, gave up a successful specialty practice for this work. In 1895 he was elected assistant editor and on the death of Mr. Ernst Hart three years later, was made editor.

BOOK REVIEWS

PHYSICAL DIAGNOSIS

By W. D. Rose, M.D., Associate Professor of Medicine in the University of Arkansas, Little Rock, Ark., Fifth Edition. Three Hundred Ten Illustrations and Three Color Plates. The C. V. Mosby Company, St. Louis, 1927.

This present publication represents the fifth revision of a well-known textbook. The author has kept the volume to comparatively small size, which has been possible only through careful condensation. Illustrations have been generously used and add greatly to the clearness of the text. The form of presentation is especially commendable. The author has used the paragraph form with headings in bold type so that the reader may readily find just the material desired.

The text should not be considered as a brief since any physician will find all the essential details necessary for complete and careful physical examinations included. The manual examination of the heart and lungs is highly stressed. Little, but sufficient, attention is given to the more specialized and unusual methods of examination.

To the general practitioner and student, the book is especially recommended. R. R. S.

GETTING WELL AND STAYING WELL

A Book for Tuberculous Patients, Public Health Nurses and Doctors, by John Patts, M.D.

This book is for the general reader. In the first place, getting well is to find if he has tuberculosis before the disease has had such progress as to make recovery doubtful. If there is a suspicion that an individual has tuberculosis, a diagnosis should be made at the earliest moment possible. A considerable part of the book is devoted to the discussion of the symptoms which will be apparent to the patient himself and to his friends. He applies to his physician for advice and treatment, and if tuberculosis is diagnosed, it becomes the duty of the patient to accept the treatment advised.

An important question arises: is the patient to be treated at home or in a sanatorium. The author believes that a sanatorium offers the best outlook.

Many objections are offered to home treatment, and points out the conflict with family, friends and quacks. The nature of these conflicts will become apparent on reflection. There are no medicines that cure tuberculosis, unfortunately lay patients have difficulty in appreciating this fact, and much valuable time is lost in going from one doctor to another for a quick cure, and going from one kind to another of remedies which are said to cure.

There are many problems that confront the tuberculous patient, and the purpose of this book is to point them out so that patient, family, and friends may have this information before them.

INFECTIOUS DISEASES AND ASEPTIC NURSING TECHNIQUE, A HANDBOOK FOR NURSES

By Dennett L. Ruchardson, M.D., Superintendent of the Providence City Hospital, Providence, R. I. 12 Mo. of 182 Pages. Illustrated. W. B. Saunders Co., 1927. Price, \$1.50 Net.

The questions relating to infectious diseases are in the main well known and the means of prevention in a general way are also well known, but there is much in the technique that is not so well appreciated as it should be. The author feeling that the instruction given nurses in their hospital service is not adequate to the needs of the nurses in their relation to the public, has prepared this book as an aid in the better understanding of the nature of the more common types of infectious diseases.

A chapter is given on infection and immunity as an introduction to the main subject. The plan of presentation is first, Definition; second, Etiology, Mortality, Incubation Period, Symptoms and Signs, Complications, Prognosis and Treatment. It will thus be seen that an understanding program is offered.

NUTRITION AND DIET IN HEALTH AND DISEASE

By James S. McLester, M.D., Professor of Medicine at the University of Alabama, Birmingham, Alabama. W. B. Saunders Co.

W. B. Saunders Company has published an interesting and valuable book of 783 pages, under the title of Nutrition and Diet. The question of nutrition is fundamental, not only in disease from the physician's point of view, but in health as a general condition of individual welfare. Closely related to nutrition is diet. In children and youth it is not uncommon to find individuals of low degree of nutrition because of some serious error of diet in which the balance between waste and repair are disturbed. In declining years the failure in nutrition is shown by a progressive loss of strength and energy, even in persons in good health. In disease nutrition fails more rapidly and more seriously.

When inquiry shows that nutrition is low and the

physician learns that the diet is insufficient and improper, he seeks such combination of foodstuffs as will meet the needs of the patient. In recent years the chemistry of foods has received much attention, and generally it is not difficult to ascertain what is lacking in the diet, not alone in the composition of foods, but in the preparation of diets which make the food palatable.

A patient enters a hospital in a low state of nutrition, with a feeling of indifference to food, but under the skillful direction of the trained dietitian, his condition rapidly improves in the direction of strength and energy, and if not suffering from actual disease, is restored to health. If suffering from some wasting disease, his condition becomes better. Dr. McLester's book studies the question of nutrition in health and disease, and in this connection the question of diet is altogether interesting and profitable. It is not by drugs that we overcome failures in nutrition, but by proper food.

UROGRAPHY

By William F. Braasch, M.D., Head of Section of Urology, Mayo Clinic; Professor of Urology, Graduate School of Medicine, University of Minnesota. Second Edition, Revised and Enlarged. Octavo of 480 Pages. Illustrated with 759 Roentgenograms. W. B. Saunders Company, 1927. Cloth, \$13.00 Net.

When we examine the many illustrations in this book and come to realize what they mean, and then turn to the chapter on the history of urology, we have a feeling of astonishment that less than thirty years have passed since the beginning of this method of diagnosis, and that the author was one of the pioneers. Many of the startling advances of the generation rests on a foundation that required many years to lay and while almost appearing to have come into existence over night, in reality did so after many years.

The advantages of Tuffier's suggestion in 1897 were so apparent in the diagnosis of conditions of the ureter that men of vision and opportunity pursued studies in this direction with great energy and success. This most productive work came from many sources, but none more than from the Mayo Clinic under the guidance and leadership of Dr. Braasch. An especially favorable condition existed at the Mayo Clinic in the vast amount of material which furnished every condition for study and comparison. Dr. Braasch, besides his own great skill and understanding, had especially skilled associates and assistants. It is now possible after many years study and observation, to furnish the profession with a monograph of great value. The value of a book of this kind must lie largely in illustrations. It would be extremely difficult to convey an adequate idea of the true relationship of parts without the illustrations, which, of course, make the book expensive.

LECTURES ON THE BIOLOGIC ASPECTS OF COLLOID AND PHYSIOLOGIC CHEMISTRY

A Series of Lectures Given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Iowa, Washington (St. Louis) and the Des Moines Academy of Medicine, Des Moines, Iowa, 1925-1926; 12 Mo. Pages, Illustrated. W. B. Saunders Co., 1927. Cloth, \$2.50 Net.

The lectures above announced are provided under the auspices of the Mayo Foundation, six in number. The first, *Principles Underlying Colloid Chemistry*, by Robert A. Millikan, director of the Norman Bridge Laboratory of Physics, Pasadena.

The second appears under the title of *Colloid Chemistry in Biology and Medicine*, by Martin H. Fisher, professor of physiology, University of Cincinnati.

Third, *the Physical Properties of Protoplasm*, by Robert Chambers, M.D., assistant professor of anatomy, Cornell University, New York.

Fourth, *Absorption and Vital Phenomena*, Ross A. Gortner, M.D., professor of agricultural biochemistry, University of Minnesota.

Fifth, *Physics of the Ultramicroscope*, by a professor of the University of Toronto, Canada.

Sixth, *the Biological Effects of Light*, by William T. Bovie, assistant professor of biophysics, Harvard University, Boston, Massachusetts.

TOBACCO AND PHYSICAL EFFICIENCY, A DIGEST OF CLINICAL DATA

By Pierre Schruppf-Pierson, Professor of Medicine, University of Cairo. Preface by Henri Vaquez, Professor of Medicine, University of Paris. Published Under the Auspices of the Committee to Study the Tobacco Problem, with a Foreword by Alexander Lambert, M.D., President. Paul B. Hoeber, Inc., Publisher. Price \$1.85.

This is an interesting and useful book for general reading. The tobacco habit is so very common that it is well that the public should know from authoritative sources what the real facts are. When we take up a book bearing this kind of a title we at once assume that it is offered as an argument showing the extreme danger of using tobacco; and how disastrous it is on physical and mental efficiency. This is not true of the book before us. The data is furnished by a committee of distinguished men, physicians, professors, and from all walks of life, observing men, free from prejudice. All this book contains is already known, but it is essential that thoughtful observers should have their views strengthened by scientific opinion based on special study, observation and research. We already know that the excessive use of tobacco is harmful; we know also that the moderate use is generally harmless, but sometimes does positive harm. This is not always to be measured by the amount used, but by the effect in

the individual case. The opinions expressed by the author are moderate, but it is apparent that he finds the non-users of tobacco have some advantage, this is fairly shown by some investigations. It is shown that since the World War there has developed an excessive use of cigarettes, which has become harmful; that cigarette smoking is more deleterious to efficiency than cigars or pipe, partly because of inhaling the smoke.

We heartily recommend this little book to the general reader for information in relation to a widespread habit upon which difference of opinion exists.

A TEXT-BOOK OF PHYSIOLOGY, FOR MEDICAL STUDENTS AND PHYSICIANS

By William H. Howell, Ph.D., M.D., Professor of Physiology in the School of Hygiene and Public Health, Johns Hopkins University, Baltimore. Tenth Edition, Thoroughly Revised. Octavo of 1081 Pages, 308 Illustrations. W. B. Saunders Company, 1927. Cloth, \$6.50.

Physiology and anatomy have since the early days of medical teaching been the foundation studies of medicine. Fifty years ago it was not uncommon to combine anatomy and physiology in the same chair, and after considering tissue structure, it was followed by functions of anatomical structure. There was some logical reason for this, but since physics and chemistry have so largely been drawn upon, physiology stands out as an independent fundamental branch of medicine. We do not feel there is much the reviewer can say beyond the announcement that the tenth edition has been presented, containing such changes and additions as are warranted by our increased knowledge. The continued popularity of the book is shown by the number of editions issued. Howell seems to be the accepted standard work on physiology in this country.

MECHANICS AND CHEMISTRY OF THE HUMAN BODY

(A Sequel to "Colonic Therapy"). By O. Boto Schellberg, New York City. Published by the Schellberg Institute, Inc., 24 East Forty-eighth Street, New York City.

This small volume of forty-five pages is compiled and circulated by the Schellberg Institute of New York as part of their program in disseminating information relative to colonic therapy.

The mechanics, chemistry, and physiology of the colon are presented from an entirely new angle. The viewpoint of the author appears reasonable but one cannot be sure that his interpretation of the phenomenon observed is entirely clear.

To the student of colon activity, the book will present some very interesting hypothesis. The procedure outlined is somewhat intricate for use by the general practitioner.

R. R. S.

(Continued on advertising page xviii)

The Colfax Sanitarium and Grand Hotel Springs COLFAX, IOWA



THE COLFAX SANITARIUM

A modern institute devoted to the treatment of rheumatism, neuritis, and kindred ailments.

Two complete units—separately managed—one for the care of those needing nursing attention—the other for milder cases desiring a change and relaxation for recuperation. Hydro-therapy with approved medical methods employed. Trained masseurs and masseuses.

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BOOK REVIEWS

(Continued from page 246)

FIRST AID AND MEDICAL SERVICE IN
INDUSTRY

Compiled from a Survey. Published by
Johnson & Johnson, New Brunswick, N. J.

This survey compiled by Johnson & Johnson will prove useful to those physicians engaged in industrial medicine, particularly those contemplating an addition or revision of their equipment.

The compiler of this book has attempted to cover the first aid equipment and personnel necessary for industrial plants of various sizes and furnish valuable suggestions regarding equipment necessary in emergency use in various industries.

A copy of this volume may be secured without cost by any physician interested by addressing Johnson & Johnson, New Brunswick, New Jersey.
R. R. S.

COCAINE NO LONGER NECESSARY

Cocaine has been widely used by nose specialists in spite of the toxicity and habit forming tendencies of this dangerous drug. The double purpose for which it is used is to produce anesthesia and to shrink the mucous membranes.

It has now been discovered that a combination of Butyn one-half per cent, and Ephedrine one per cent, produces anesthesia and shrinks the mucous membranes, both actions being markedly prolonged with this solution. The dosage used is much less toxic than the concentration of cocaine used to produce equal anesthesia. Butyn-Ephedrine Solution is not habit forming and requires no narcotic blank. It was developed in the research department of the Abbott Laboratories, North Chicago, Illinois, and is supplied in 1 oz. bottles.

A CONCENTRATED AND REFINED TETANUS
ANTITOXIN

The fact that tetanus antitoxin when administered for the relief of a case of developed tetanus must be given in doses of 20,000 units or more makes the question of concentrating the bulk of the serum to the smallest possible dimensions a very urgent one. This is true whether the antitoxin is administered intravenously, when of course no blood need be withdrawn, or intraspinaly, when room must be made in the cord for the dose, and especially when the volume to be administered is considerable.

Biological manufacturers have eliminated one ingredient after another of the antitoxic serum, to reduce its bulk without rendering it too viscous for prompt assimilation. The serum albumin was first thrown out, then a fair proportion of the euglobulin, without in any way affecting the specific activity of the residue—thus proving that the antitoxic principle

is neither protein nor true globulin, and that these ingredients of native serum only complicate serum therapy.

The tetanus antitoxin now supplied by Parke, Davis & Co. is characterized, the manufacturers claim, by small volume, waterwhite appearance, and comparative freedom from anaphylactogenic constituents. A booklet on the subject has just been issued by the manufacturers.

NEW AND NON-OFFICIAL REMEDIES

Chicago, Illinois, February 25, 1928.

In addition to the articles enumerated in our letter of January 28th, the following have been accepted:

Hollister-Stier Laboratories:

Alder Pollen Extract—Hollister-Stier; Aspen Pollen Extract—Hollister-Stier; Atriplex Pollen Extract—Hollister-Stier; Awnless Brome Grass Pollen Extract—Hollister-Stier; Blue Bunch Grass Pollen Extract—Hollister-Stier; Box Elder Pollen Extract—Hollister-Stier; Canada Blue Grass Pollen Extract—Hollister-Stier; Cheat Pollen Extract—Hollister-Stier; Common Sagebrush Pollen Extract—Hollister-Stier; Crested Koeleria Pollen Extract—Hollister-Stier; Dadelion Pollen Extract—Hollister-Stier; Eastern Ragweed Pollen Extract—Hollister-Stier; English Plantain Pollen Extract—Hollister-Stier; Giant Poverty Weed Pollen Extract—Hollister-Stier; Kentucky Blue Grass Pollen Extract—Hollister-Stier; Lamb's Quarters Pollen Extract—Hollister-Stier; Mugwort Pollen Extract—Hollister-Stier; Orchard Grass Pollen Extract—Hollister-Stier; Perennial Rye Grass Pollen Extract—Hollister-Stier; Quack Grass Pollen Extract—Hollister-Stier; Red Top Pollen Extract—Hollister-Stier; Redroot Pigweed Pollen Extract—Hollister-Stier; Russian Thistle Pollen Extract—Hollister-Stier; Sandberg's June Grass Pollen Extract—Hollister-Stier; Sheep Sorrel Pollen Extract—Hollister-Stier; Spring Birch Pollen Extract—Hollister-Stier; Timothy Pollen Extract—Hollister-Stier; Velvet Grass Pollen Extract—Hollister-Stier; Western Ragweed Pollen Extract—Hollister-Stier; Willow Pollen Extract—Hollister-Stier.

Maltbie Chemical Co.:

Compound Syrup of Calcreose.

Chicago, Illinois, March 30, 1928.

In addition to the articles enumerated in our letter of February 25th, the following have been accepted:

Adohr Creamery Co.:

B. Acidophilus Milk—Adohr.

Parke, Davis & Co.:

Solution Ephedrine Sulphate—P. D. & Co., 3 per cent.

Chicago, Illinois, April 28, 1928.

In addition to the articles enumerated in our letter of March 30th, the following have been accepted:

The Cheney Chemical Co.:

Ethylene-Cheney.

E. Fougere & Co.:

Lipiodol-Lafay.

Lipiodol Radiologique Descendant.

Lipiodol Radiologique Ascendant.

Mead Johnson & Co.:

Mead's Powdered Boilable Protein Milk.

Swan-Myers Co.:

Ephedrine—Swan-Myers.

Ephedrine Inhalant—Swan-Myers.

Winthrop Chemical Co., Inc.:

Phanodorn Tablets, 3 grains.

The Wilgus Sanitarium ROCKFORD, ILL.

Mild mental and nervous conditions including those due to drugs and alcohol. Long Distance, Rockford, Main 3767, and reverse the charges.

DR. SIDNEY D. WILGUS, formerly superintendent Elgin and Kankakee State Hospitals; **DR. EGBERT W. FELL**, late Physician Boston Psychopathic Hospital, recent Laboratory Chief Elgin State Hospital.

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The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, JULY, 1928

No. 7

OUR MATERNAL MORTALITY*

F. W. RICE, M.D., Des Moines

Owing to the fact that most papers discuss only the rarer complications of pregnancy, these few notes are written with an idea of stimulating an interest in, and a discussion of the common every-day problems; for it is these simpler problems that have to do with the greater part of our mortality and morbidity in these cases.

This country still loses about 20,000 women each year from the complications of pregnancy. The percentage for 1924 was 6.7 deaths per thousand from these causes. Fully 85 per cent of these deaths are preventable, most of them being due to infections, hemorrhage, and toxemia. The other 15 per cent comprise such complications as placenta previa, abruptio placenta, tuberculosis, heart disease and systemic infections. It would thus appear that if by more carefully watching our patients, we could eliminate the preventable 85 per cent of the 6.7 deaths per thousand, our death rate would then be only one per thousand. Now just who is to blame for these unnecessary deaths; certainly the doctor has many accomplices. The first is the laity.

That babies have been born for countless centuries has instilled into the public the idea that we could not prevent a woman from bearing a child, so why worry about it. They do not realize that reproduction is any more than a normal process; that no more is necessary than to have somebody tie the cord, grease the baby, and if by that time the placenta does not come away, remove it by making traction on the cord.

The same public never thinks of having an appendix removed in the home; neither would they argue about the fee for the few minutes work required, even though it amounted to many times the charges made for the long hours spent at prenatal care and delivery.

There is often a seeming lack of interest in their offspring. I once heard of a father of a

large family who, when asked about his Poland China pigs, waxed enthusiastic in his description of their merits and pedigrees; but when asked how many children he had, would find it necessary to count them over on his fingers lest he should leave out one. That some of his children were unwanted, perhaps dulled his enthusiasm for them.

Superstition and back fence medicine are also big factors in bad obstetrics. There are still such beliefs as putting a butcher's knife under the pillow to scare away the pain, the certainty that walking under a clothes line will cause the cord to be wrapped about the baby's neck, or that pregnancy occurring in the dark of the moon will result in a still born baby.

Keeping down expenses contributes materially to the problem. It keeps the patients out of hospitals, causes them to buy patent medicines, employ doctors at the last minute, induces them to do without the necessary things for the confinement, and gives them an eagerness to get back to work too soon.

The second accomplice is the nurse. Doctors want three cardinal points in the nurse. They are good clean technique, ability to watch patients for symptoms, and good general nursing.

Good general nursing means more than good baths, tasty meals, and speedy bed making. It means cleanliness, reliability, adaptability, watchfulness and sympathy.

Cleanliness is next to godliness. It protects the baby's eyes and cord, the mother's nipples and perineum, and her own person from infection.

Watchfulness should not merely include such things as hemorrhage, shock, convulsions, and sepsis; but also the baby's weight, ability to nurse, and condition of the cord; and the mother's nipples, bowels and bladder.

Reliability should inspire the doctor's confidence in his nurse, when she reports the condition of the patient, or the carrying out of orders. It should cause her to look twice before giving a dose of medicine, to see that it is the right

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

kind and dosage. It should make her willing to give up her afternoon off, if the patient's condition warranted.

There should be adaptability to surroundings; to bear in mind that the instruments may be well boiled in the skillet; that the cord may be ligated with a bit of boiled string; and that many a healthy baby has been greased with a bacon rind. There should be adaptability to different doctors' orders; to feel that lysol is as good an antiseptic perhaps, as bicloride; that a cord cut two inches long may be as good as if cut one inch long; and that a pulse bath on the right wrist, is as good as one on the left. In other words they should bear in mind that there are many equally good ways of doing things.

Sympathy should not make the patient over-anxious; neither should it be the cold matter-of-fact type that tells the mother that every baby was born that way; but the sympathetic coaching, with a pat on the cheek, a rub on the back and a shake of the pillow; remembering that while the rich expect it, the poor appreciate it. It is surprising how much the nurse's attitude toward the patient will affect the patient's attitude toward the doctor.

The next accomplice is the medical school and hospital. Medical students should be taught the dignity and importance of obstetrics; that it is not a necessary evil, or a means of making a little more money. When we see medical schools with half a dozen daily courses in medicine and surgery on the roster, with only one bi-weekly course in obstetrics, is it any wonder that we interpret everything on a medical or surgical basis, and practice obstetrics as a sideline.

In many hospitals it is impossible to get an intern delegated to a strictly obstetrical service. He is both allowed and expected to give anesthetics, scrub up for operating room, dress pus cases, and care for infectious medical cases along with his obstetrics. Often one patient's history will have entries by several different interns.

I have saved our own profession until the last, for we are the biggest offenders.

It seems that too many doctors practice obstetrics as a side line. They recognize it as a necessary service they must render their patients in order to get their other business, very much as a filling station attendant fills your radiator with water to get you to buy gas of him.

An appetite for the spectacular is an item that catches even the biggest men in the country. It finds them doing elective versions, radical prophylactic forceps and laparotrachelotomy under

local anesthesia; and those of us comprising the lesser class, doing manual dilatation of the cervix, induction of labor, Cesarean sections, curretting infected abortions, and intravenous administration of mercurochrome 220. I suppose we could accuse the physician of one hundred years ago of ignorance, but today our greatest mistakes are due to carelessness and meddlesomeness.

In his autobiography, Benjamin Franklin tells of how he governed himself by a set of rules, which he tried each day to carry out in detail. This was his religion and he lived by it as strictly as anyone lives by the Bible. Now it has always seemed to me that this would be a good method of governing our obstetrical practice; consequently several years ago I began such a list, and have added to it as experience, and reading have directed. They are as follows:

Always see patients early, before pregnancy has a chance to modify their symptoms and physical findings. For example, high blood-pressure found late in pregnancy may have been caused by toxemia of pregnancy, or the patient may have had it for a period of years. The same is true of other things.

At the first visit, take a complete history, and make a complete physical examination. Be sure to note the blood-pressure, urinalysis, pelvic measurements, the presence of fibroids, cysts, retroversions, malignancies, scarred cervix, chronic appendix, and the effects of operations and injuries. The Wassermann test should be done when indicated and if positive, vigorous treatment carried out.

See patients often; ask about their various symptoms; regulate their activities and hygiene. Blood-pressure should be noted and urinalysis done every two weeks. This will practically always warn one of approaching toxemia. Williams says, "The greater extension of prenatal care is the most efficient means of preventing eclampsia". It is safer to have the patient void in the office, to prevent specimens being brought in in unclean bottles that contain enough syrup or other ingredients to give a test for sugar, albumin or diacetic acid.

Examinations should be done often enough to detect and correct malpositions of the fetus, edema, and varicosities; also to observe lightening and dilation of the cervix, in cases of uncertain dates.

Do not induce labor merely because the patient's dates show she should be due. I have seen premature infants delivered that way; one that was barely viable. When we really get down to facts, how many of us have seen a baby over-

due enough to cause complications. Even in contracted pelvis DeLee says, "Induction of labor is not recommended because of its high fetal mortality". Williams has the same opinion.

Do not forget that the patient is your patient; so watch her yourself. No one can be expected to take an interest in someone's else patient; besides the presence of her doctor improves her morale.

Remember that a patient in labor is more than an ordinary operative risk. The placental site is a fertile field for infection, which is quickly thrust into the circulation through the placental sinuses.

Do not deliver a patient until you are thoroughly scrubbed, capped, masked, and gowned; and until the patient is shaved, scrubbed and draped as though for a vaginal operation. This also applies to the examination of patients in labor. Most puerperal patients who die, die from infection; and most infection is caused by a break in the above technique. Sir Victor Bonney says that the vagina should be regarded as a wound, into which the passage of anything unsterilized, is a transgression of the ritual of aseptic surgery.

Do not examine patients in labor oftener than necessary and use the rectal route when practicable. This applies especially at the end of the second stage. How often do we see physicians carefully refrain from making more than one or two vaginal examinations during labor—and then, as soon as they get the patient on the table, make ten or fifteen examinations in as many minutes.

Do not give pituitrin in labor unless it is absolutely indicated, and then in very small doses. Its use often causes rupture of the uterus or asphyxiation of the child.

Do not give the patient hot douches to stimulate labor pains; the solution may enter the uterus through the dilated cervix and cause infection.

Do not forcibly dilate the cervix during labor. To do so will often tear the cervix or lower uterine segment, with the resulting hemorrhage and infection.

Do not rupture the membranes as long as they are of any use to the patient; and never during a contraction.

Do not encourage a patient to strain during the first stage of labor. Straining tires her out and forces the whole uterus down into the pelvis; thus increasing the danger of cystoceles, rectoceles, and procidentia.

Always keep track of the fetal parts and heart tones; so as to be able to deliver the baby quickly

in case its heart becomes irregular. Many babies are sacrificed by this neglect.

Remember a patient in labor is doing the hardest kind of work and needs some nourishment. It should be light and easily digested.

Do not let the bladder become distended during labor. It delays the descent of the head, causes irritable bladder that needs catheterizing, and increases the risk of cystocele.

Always deliver the patient spontaneously when practicable. The use of the forceps should lose some of the spectacular after intern days are over. It should not be necessary to stress the dangers to both mother and child by their use.

Do not deliver the child during a contraction; it increases the chance of laceration.

Do not force the head away from the perineum too vigorously; it overstretches the anterior vaginal structures and causes subsequent cystoceles. Here is where an episiotomy relieves the strain on both anterior and posterior vagina.

At the end of the second stage, when the contractions are weakened by fatigue or anesthetic, the judicious use of pituitrin will often make forceps unnecessary. Only enough should be given to cause contractions of normal strength and frequency.

Do not pull hard on the baby's head when extracting the shoulders; such traction may dislocate the neck or tear the brachial plexus. In such cases an episiotomy of sufficient proportions will relieve the strain on the baby's neck and also the mother's perineum.

Always irrigate the perineum with lysol solution, frequently during labor, to keep it free from fecal contamination. In addition it may be painted with mercurochrome 220.

When wiping the baby's mouth immediately after birth, always use cotton flannel, and not gauze. That a gauze covered finger is sharp enough to literally wipe off adenoids, precludes its use as a mouth wipe.

Always give pituitrin immediately after the baby is born, and ergot as soon as the placenta is delivered. To do so will practically always prevent post-partem hemorrhage.

Never hurry the placenta; wait at least twenty minutes, or until the cord lengthens. When it loosens, support the abdomen with the hand or binder and let the patient expel it by her own efforts. This avoids the trauma from Crede, most of the time. Never make traction on the cord.

Never insert the hand into the uterus after the placenta is delivered to see if everything is all right. There are men in our profession who,

with the assurance that must be born of ignorance, make a practice of this most pernicious procedure.

Always examine the placenta carefully to see if it is intact.

Never express the clots from a uterus that is already well contracted, for more will surely take their place from renewed bleeding at the placental site.

Always watch the fundus for an hour after delivery. Many hemorrhages begin some time afterwards from delayed relaxation.

Admit the presence of and repair all lacerations carefully. It is no particular feather in one's cap to deny the presence of a laceration and let the patient find it out later at the hands of an unfriendly colleague.

Never deliver the patient by forceps or version except in the interest of the mother and baby. When such procedure is necessary, be sure that the cervix is fully dilated and effaced, that the bladder is empty and that the patient is under anesthesia.

Do not fasten the perineal pad so tight as to dam up the flow of blood, drainage of lochia, or the passage of involuntary stool; and thus contaminate the vaginal passage.

Visit the patient each day she is convalescing. Look for and correct all possible symptoms. How easy it is to neglect these visits when the patient is apparently alright, only to find later that a preventable complication had arisen.

Give ergot in half-dram doses for the first few days; it hastens involution, and diminishes the chances of post-partem infection by keeping the placental sinuses closed.

Do not pump or massage engorged breasts preceding lactation; there is no milk in the breasts, and the manipulation may cause trauma.

Never douche post-partem patients; it does no good and increases the chance of infection.

Do not express clots during the puerperium; it traumatizes the placental site and causes further bleeding.

Many of the items in this list may seem quite unnecessary; but strict adherence to their tenants has saved me a lot of grief.

In closing let me emphasize that it is attention to the little things that will prevent 85 per cent of our obstetrical complications; that a little common judgment, plus as much interest as we take in operated cases are the two most essential things; and lastly that we must never lose sight of the fact that the doctor must also be a preacher; preach to himself, preach to his nurse, and preach to his patients; for if obstetrics is to be advanced

as fast as other branches of medicine, we must all be conscientious, and do that which is best for the patient, regardless of whim, greed, or that disinclination to do one's work well, commonly called laziness.

Discussion

Dr. Everett D. Plass, Iowa City—There is very excellent statistical evidence to support the points which Dr. Rice has brought out. It is a crying shame, if one considers the question from that standpoint, that maternal mortality in the United States has not decreased since 1900, in an era when the mortality from practically every other condition has been on the down-grade. Dr. Rice has brought out the two essential things which have conduced to such a steady curve: First, the absence of prenatal care, which, it has been well shown, can reduce maternal mortality; and, second, too frequent operations. If in this country the medical profession would stand solidly behind a campaign for efficient prenatal care in even the majority of our obstetrical cases, there is no doubt but that the death rate would drop materially. There is such a tendency, for prenatal care is being more and more efficiently practiced, but, as I see it, the effects which one might expect from such preventive procedures are being offset by the furore for obstetrical operations. We all know that in certain parts of the country it is now deemed a disgrace to allow a woman to have a baby the way she was meant to have it. When we reach the point where we can institute prenatal care and get back to the sane first principles of obstetrical care, I feel sure we will not be a disgrace among the civilized nations. At present, the maternal mortality in the United States, per thousand live births, is almost exactly the same as it was in 1900.

Dr. W. R. Brock, Sheldon—The paper is very unique in its completeness, and I arise merely to make one objection to the suggestion of examination per rectum. I have never been able to concede that that infected cavity ought to be molested. I think we should keep out of it because of its infection. Further, I have never seen any particular advantage accruing from rectal examination in preference to vaginal examination, and I do not believe that a rectal examination is going to determine a breech presentation or a funis presentation sufficiently early to avoid a tragedy. The rectum is the filthiest canal of the body, and the refinement of art and the refinement of cleanliness in obstetrical work should exclude all intruders from entering this dark and filthy cavern for knowledge that can be obtained more surely, more accurately by cleaner and less barbaric procedure.

Dr. James H. Gasson, Bedford—Occasionally a baby dies when perhaps twelve or twenty-four hours old—the so-called "blue baby". There really is no blueness, and in my own mind I do not believe it died from the condition of the heart. We are not permitted to hold an autopsy in these cases. A short time ago a baby died about six hours after

birth, apparently a perfectly healthy baby. I read not long ago about hemorrhage of the brain due to high pressure of the spinal fluid, and I was hoping that Dr. Rice would say something about that and give us some light along that line. I do not believe these are all blue babies. Something is wrong, and I would like to know what it is.

Dr. Nicholas Schilling, New Hampton—It is fashionable to criticize the surgeon for doing too many obstetric operations, and I have found in reading and listening to various discussions that the criticism is always directed against the other fellow. If I were true to form I would say that in every other place except our own they do too many Caesarean sections. There is just one point I wish to emphasize: That the surgeon who has the responsibility, sometimes thrust upon him, to do a Caesarean section or something else, should have been notified several days before. Every surgeon has had experience to this effect: A case of placenta praevia will be brought into his institution without notice and he is asked to do something immediately. I had a case of placenta praevia that bled three weeks before, bled again in another week, and then the case was sent to the hospital the vagina packed with gauze. That is the point I wish to make. If you are going to do a Caesarean section or any other obstetric operation, let us study the case beforehand and deliberately plan what we are going to do and not wait until two o'clock in the morning and then expect the surgeon to do something at once. One case I wish to report. Last year, just before going on his vacation, an associate turned an obstetric case over to me, stating that the patient was over-time several weeks. On examination I found a contracted pelvis in an old primipara with a long rigid cervix. I said to her, if you want a live baby and wish to get along nicely we had better do Caesarean section. We did this and the woman has a live baby, the uterus is in its normal position, her perineum is not torn. The danger from operative obstetrics comes because the operation is undertaken too late, haste is imperative, and there is therefore no opportunity to make proper preparations and the patient is in no condition to undergo an operation. She is exhausted and infected, and in this condition she is brought to the surgeon to help out. I believe that conservatism in obstetrics is a good thing, but the mortality from Caesarean section is not much greater than from the ordinary appendicectomy operation if the operation is done in time and undertaken by some one who knows his stuff. That is another point I wish to emphasize. I believe if there is one specialty that is justified among general practitioners in a small town, that specialty is obstetrics.

Dr. A. P. Johnson, Sigourney—In the interest of decreased maternal morbidity I here enter a plea for abdominal examinations for the purpose of diagnosis of the fetal position and presentation during labor or immediately preceding same—a system developed by Pinard and amplified by many others. In the

diagnosis of these conditions through the rectum, I am not proficient and find the patient dislikes although she may tolerate this examination. But unless there is a great preponderance of adipose on the abdomen, I feel absolutely safe in making my diagnosis without exploring the vagina or the rectum. There can be no question that the fewer vaginal examinations made during confinement, the better, no matter how clean the accoucheur or the patient. In practically all my cases no instrument or finger has passed the labia majora. The diagnosis of placenta previa or the necessity for a Caesarean section has generally been made long before the confinement. In these days of increased bacteria both in the vegetable and the animal kingdoms, we are compelled to use antiseptics and asepsis if we grow healthy fruit or babies or preserve the old trees or the mothers.

Dr. Frank W. Smith, Red Oak—There is one point worth mentioning in cases of lacerated perineum. As to the lower part of the parturient canal, we sometimes have a baby so large that it cannot pass through the canal without laceration. Perhaps you are going to use forceps, but if you make incision on both sides and turn the flap down, in delivering the child and afterbirth you will do no damage to the median line passing to the rectum and union will always take place. I have tried this procedure in a number of these cases and in every one I have secured a splendid union.

Dr. Rice (closing)—I did not attempt to discuss operative obstetrics such as forceps, Caesarean section or any other necessary operative procedure. It was my desire to call attention to the ordinary mistakes; not only that patients make, but those that we make. In practically 40 per cent of the 20,000 women that die each year from the complications of pregnancy, death is due to infection; in approximately 22 per cent death is due to the toxemias, and in 20 per cent to post partum hemorrhage. This makes almost 85 per cent of the total mortality. So it seems to me that it is of greater importance to look after this 85 per cent a bit more carefully and pay less attention to the operative side that comprises only 15 per cent. As to rectal examinations, I think every patient that is in no need of a Caesarean section, should have at least one vaginal examination, to be sure that the head is coming down in the right direction. During the remainder of the labor, rectal examinations are sufficient to keep track of the descent of the head and the amount of dilatation of the cervix. As to prolapse of the cord, vaginal examinations alone will tell us when there is danger of this complication. In regard to expressing the placenta by Crede, I feel that there is certain to be some trauma of the fundus. If we support the patient's abdomen, she will usually be able to strain hard enough to deliver it herself. As to the babies that die, many are due to intracranial injuries, with or without hemorrhage. This is the cause in many cases of rapid spontaneous de-

liveries, or where there is rigidity of the cervix. In case of blue babies the permanent type is due to the heart condition, while the temporary type is due to atelectasis of the lungs which is relieved by stimulating crying, or artificial respiration or mouth to mouth insufflation. In regard to external examinations, it was taken for granted that the patient should have it done sufficiently often to detect position of the baby's body, the force of the contractions and the fetal heart tones. If the rate and regularity of the heart tones were watched more closely, many babies could be delivered more rapidly and decidedly to their advantage. To prevent the development of cystocele, this can be greatly lessened by relieving the strain on the posterior and anterior vaginal structures by episiotomy. In closing let me emphasize that it is only by correcting our apparently little mistakes that we can hope to lower our mortality in obstetrics.

CHOLESTEATOMA—ITS ETIOLOGY, PATHOGENESIS*

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Eighty per cent of the brain tissue is water. Ten per cent is protein. The remaining ten per cent is made up of a group of substances which resemble fats in many of their physical properties and reactions. One of the substances is cholesterol, which is one of the primary constituents of the brain cell, and has every appearance of a fat. Under the microscope fat globules and crystals of cholesterine can be found. Cholesterol also occurs in the bile in abundance and is found in many forms of biliary calculi.

Cholesteatoma are tumors made up of a substance having the physical properties of cholesterol. They are classed as benign tumors. Two kinds of cholesteatoma are described but I think they belong to the same type of tumor. Both occur in the cranial cavity and are seldom found in any other part of the body. One is the white pearly tumor occasionally found at autopsy in the ventricles and meninges of the brain. The other is the mass of epithelial tissue formed in the mastoid bone with which the otologist is familiar and presents quite a different clinical picture from the other.

The true cholesteatoma of the meninges found at autopsy and described early by Mueller and Virchow are rare. Virchow made an exhaustive study of these tumors, which he considered benign and called "pearlen tumors". Harvey Cushing and Percival Bailey of Boston have done

some very exhaustive work on this class of tumors of late. Percival Bailey has gone over the literature to find but sixty-two of these tumors reported. He describes them as "resembling startlingly, mother of pearl, both in tint and luster. The surface is smooth, silky, with irregular pea sized or larger elevations and peels away easily from its surroundings. The surface layers are tough. From the surface with a knife blade flakes may be easily separated which show beautifully the characteristic lustre. One of these tumors looking like a great pearl in its setting of reddish brain tissue makes a most beautiful picture".

Histologically Myers gives the following report. "The cholesteatomas are composed of a firm fibrous mass formed of the pia, whose inner surface is covered by layers of flat polygonal cells containing keratohylin granules. Further of masses of cells which have fallen from the walls, and a fatty mass mixed with cholestrin crystals. This is the microscopic structure of a true cholesteatoma."

It seems a far cry from this beautiful tumor described as "the pearl" to the foul smelling cholesteatoma with which we are familiar but they have much the same histology. The cholesteatoma of the mastoid bone occurring as a sequel of a middle ear infection is described by McKenzie as "a foul smelling, cheesy substance which collects in the attic or antrum or more rarely in the mastoid cells and is a decomposing mass of epidermal cells", or by Logan Turner "as a tumor consisting of a matrix or germinal layer attached to the bony wall of the antrum or attic and masses of cast off epithelium, concentrically arranged, with here and there crystals of cholesterine. To the naked eye it generally appears as a smooth glistening and pearly body, but in septic cases it looks like a mass of putty".

Harvey Cushing classifies the intra cranial cholesteatomas as tumors of epidermal tissues and gives the following explanation of their origin. "It is my impression that many of the cholesteatomas reported by otologists are true epidermal tumors of the sort under discussion, that is, the pearl tumors of the meninges, which originate from aberrant epidermal 'rests' laid down in the temporal bone during the early formation of the complicated sense organ which it contains. Certainly all the tumors which have a demonstrable epidermal membrane, such as those more often encountered in the mastoid process, and may reach considerable size, are in all likelihood actual Cruveilhian tumors. It is not impos-

*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927, Section Ophthalmology, Otology and Rhino-Laryngology.

sible indeed, that in many of the recorded cases the cholesteatoma itself was responsible for the otitis media, rather than the reverse."

As there are cases of cholesteatoma of the mastoid bone recorded without a history of a previous middle ear suppuration or perforation of the ear drum we must consider them as true pearl tumors and can easily explain their occurrence by Cushing's "rest" theory which seems very logical.

Otologists, generally, agree with Cushing that cholesteatomas are tumors made up of epithelial cells but have about the following explanation of their origin. Cholesteatomas of the mastoid bone are usually secondary to a mild type of infection of the middle ear. The entire process is a reparative attempt on the part of nature in which there is an overwhelming amount of epithelial cells produced. The cuboidal epithelial cells lining the middle ear are destroyed by the infection and not having the power to reproduce themselves, nature attempts to epidermize the cavity by a proliferation of epithelial cells from the external surface of the drum membrane which form and push into the middle ear through the marginal perforation of the drum. An enormous piling up in the middle ear, attic or the mastoid antrum, or in all of them of the epithelial cells thus formed, produces a tumor mass, which by mechanical pressure or by the action of the living epithelial cells themselves, causes an absorption of the mastoid bone, as the growth of the tumor mass increases.

In the process of epithelial cell proliferation in the formation of a cholesteatoma, we have an increase of epithelial cells similar to the formation of an epithelioma, or carcinoma. In cholesteatoma the irritant necessary is the low type infection in the middle ear. In epithelioma the irritant may be mechanical and possibly infectious in nature. In either of them the process may be due to a misplaced "rest" of epithelial tissue which is coaxed into excessive activity by the action of some specific bacteria, by an irritant, by chance, or upon its own volition. In cholesteatoma, the excess epithelial cells crowd into every available nook in the mastoid process of the temporal bone, while in epithelioma the excess cells crowd themselves into whorls which invade the surrounding tissues.

From my own experience in practice I think cholesteatoma is of rather rare occurrence, although Nager in his studies of a large European clinic gave one case of cholesteatoma to every three cases of middle ear infection.

Ulrich reports in a series of operative cases of cholesteatoma that half of them did not give a

distinct casual infection. The discharge from the ear beginning without any marked symptoms. It is well to bear in mind that cholesteatoma develops in ears having few symptoms of infection other than slight drainage and a perforation of the drum membrane. When we recall that tuberculosis of the middle ear sneaks in without much heralding we may wonder if there is any direct relationship between the two diseases. Aldrich in a close study of 458 cases in the clinic at Bale confirmed quite conclusively that there is a close relationship between tuberculosis and cholesteatoma of the ear. The excessive epidermization of the mastoid being but an attempt on the part of nature to repair the histologic changes of tuberculosis taking place in the mucous membrane of the middle ear. In this group of cases he could prove an already existing tuberculosis, or a very definite hereditary disposition in 42 per cent of them. The per cent of tuberculosis was especially high in cases which could not be traced to a definite origin, as measles, scarlet fever, etc.

I report the following as a typical case of cholesteatoma.

Imogene H. Eight years of age, has three brothers and three sisters living and in good health. Her mother was sick and bedfast for one year prior to her death. She had a cough and extreme emaciation and death was probably due to pulmonary tuberculosis.

When three years of age Imogene had a suppurating ear which never discharged freely and continued draining slightly, occasionally, until she was eight years old. Then she developed what appeared to be an acute mastoid infection. There was temperature, a large polypus in the external ear canal, a foul discharge from the ear, swelling, edema and tenderness over the mastoid area.

The usual incision for a mastoid operation was made. The bony auditory canal was filled with a mass, which had pushed the membranous canal forward against the anterior bony wall. It had also pushed backward under the periosteum producing a swelling behind the ear similar in appearance to a sub-periosteal abscess.

After the covering of the mastoid was removed the middle ear, antrum, auditis and mastoid cells was one large space filled with a cheesy like mass, which was easily scooped out with a spoon curette leaving a clean cavity similar to the ideal we have in mind when doing a radical mastoid operation. The necrosis of the posterior wall of the external bony canal was complete. The incus and malleus were destroyed.

The dressing employed was similar to that used following an operation for simple mastoiditis. She was in the hospital ten days when the drainage tubes were removed. The posterior wound was permitted

to heal while the ear was still discharging. The ear continued to drain for four months, when it healed.

This patient was anemic, under nourished, and quite in contrast to the rest of the family who were all robust and in perfect health.

I suspected the patient had tuberculosis but an internist assured me her lungs by percussion and auscultation were perfectly normal and no further tests were made.

In conclusion I wish to emphasize the close histologic relationship between the pearl tumors of the meninges and cholesteatoma of the mastoid. The possible role tuberculosis may play as a factor in bringing about a low grade of infection of the middle ear resulting in the formation of a cholesteatoma.

THE DIAGNOSIS AND TREATMENT OF SOME MAJOR INFECTIONS OF THE HAND*

SUMNER L. KOCH, M.D., Chicago

There are three types of acute infection of the hand which deserve particular emphasis because of their frequency, their severity, and because they result too often in permanent and crippling deformities. They are lymphatic infections, infections of the flexor tendon sheaths and infections of the fascial spaces of the palm.

Although the anatomical and pathological considerations involved in such infections were pointed out in masterly fashion by Kanavel seventeen years ago¹ and although he described in detail the typical symptoms and the proper incisions for their drainage, too many surgeons are still unfamiliar with his work and so are failing to secure the results they might attain with more careful surgical treatment.

LYMPHATIC INFECTIONS

The lymphatic vessels of the hand are small and numerous, and cover the hand like a fine meshwork. Of particular importance is the fact that the larger collecting trunks *take the shortest course to the back of the hand*. From the back of the hand they drain through larger channels extending upward to the glands of the elbow, the axilla and the supraclavicular region. The lymphatic vessels from the little finger and ring finger usually drain into the antecubital and epitrochlear glands. The lymphatics of the thumb and index finger drain directly into the axillary glands. The lymphatics of the middle finger

may drain into either the antecubital or axillary glands, but in 15 per cent of cases, according to Kanavel, drain directly into the supraclavicular glands, so that infection arising in the middle finger may very early produce severe systemic symptoms.

Lymphatic infections usually follow an apparently trivial injury—the stick of a pin, a scratch from a rusty nail, a hair follicle infection, an injury from a surgical needle or tonsil snare. A throbbing pain, the signs of an acute inflammation at the site of injury and red streaks running up the forearm are the early symptoms of such an infection. Systemic symptoms—a chill, high fever and prostration—follow soon after.

These symptoms are danger signals—warnings of an acute fulminant infection, usually of the streptococcic type. Such infections require immediate and watchful care—rest in bed, large quantities of fluids, careful elimination, big hot dressings which cover the entire extremity and most conservative surgical treatment, i. e., incision only when there is definite localization of the infection.

The danger of hasty incision in this type of infection is illustrated by a case which came under our observation two years ago. A junior medical student on his service at the Lying-in dispensary infected a scratch wound on the dorsum of the index finger. The finger became somewhat swollen and painful, and he persuaded one of the surgeons in the Out-Patient department to incise it under a local anesthetic. No pus was found. The following day the finger was more swollen and painful; there were a few red lines running up the forearm and the patient was obviously ill. He was told to go to bed, to drink a lot of water, to put a big, hot dressing on the forearm, and that under no circumstances must any one be allowed to incise the finger. He rather protested against this advice; he still thought there was pus in the finger, but because he assured us that he would carry out the treatment at home and that he could do it very much more conveniently than by entering the hospital he was permitted to go. Nothing was heard from him, and the matter was forgotten until ten days later when I saw a notice on the bulletin board that the junior class was excused from classes to attend the funeral of this boy. He had gone home from the hospital, persuaded a doctor in his neighborhood to incise the finger, and within 24 hours had developed a severe chill, a temperature of 105°, and all the signs of a malignant generalized infection. Within two days

*From the Department of Surgery, Northwestern University Medical School. Read before the Des Moines Academy of Medicine, March 22, 1928.

symptoms of pulmonary involvement appeared and the condition rapidly went on to a fatal termination.

In such cases if one cannot succeed in bringing about a localization of the infection by conservative treatment, he may be certain that surgical intervention will only hasten the fatal outcome.

TENDON SHEATH INFECTIONS

Tendon sheath infections may result from direct inoculation or from extension of infection from the subcutaneous tissues. Their gravity lies in the fact that they spread with remarkable rapidity, and that destruction of the tendon sheath and of the tendon itself ensues in a very short time unless the infected area is drained, and prompt measures instituted to maintain the function of the tendons.

The tendon sheaths of the index, middle and ring fingers extend from a point just distal to the distal flexion crease of the finger to a line closely approximating the distal flexion crease of the palm (Figure 1). They lie in close apposition to the palmar surface of the phalanges and are separated from the bone only by a thin layer of connective tissue. Opposite the proximal interphalangeal joint, particularly, there is very little tissue intervening between the tendon sheath and the bone. An infection of the flexor sheaths of any of these fingers makes itself evident very promptly by pain, swelling, inability to extend the fingers completely and by tenderness which corresponds definitely and accurately to the anatomical outlines of the tendon sheath.

The sheath of the long flexor of the thumb begins at a point slightly distal to the flexion crease of the thumb, and accompanies the flexor pollicis longus through the palm to terminate a thumb's breadth above the anterior ligament in an expansion known as the radial bursa (Figure 1). Over the first metacarpal bone it lies between the flexor pollicis brevis and the adductor obliquus. The motor branch to the muscles of the thenar eminence lies superficial to the tendon sheath, approximately a thumb's breadth above the annular ligament. The bursa ends in a blind pouch under the tendon and upon the pronator quadratus, separated by the latter from the wrist joint and the radio-ulnar joint.

The tendon sheath of the flexors of the little finger begins just distal to the distal flexion crease of the fifth finger and extends proximalward to become continuous, in the majority of cases, with the ulnar bursa, a good sized sac which lies over the metacarpal bone of the ring finger and the head of the middle metacarpal

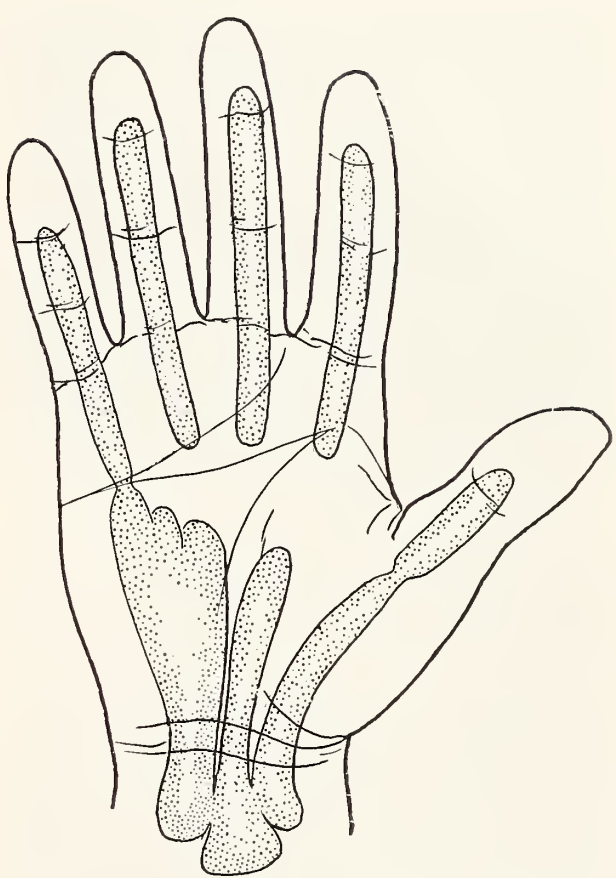


FIGURE 1. The relation of the flexor tendon sheaths and the radial and ulnar bursae to the superficial markings of the hand.

bone, and extends proximalward under the anterior annular ligament a thumb's breadth above the ligament (Figure 1). Here it lies underneath the flexor tendons, upon the pronator quadratus muscle, and is separated by this muscle from the wrist joint. In the region of the wrist joint the ulnar bursa forms a more or less complete sheath for the flexor tendons, being pushed radialward, as it were, in three pockets—one superficial to the tendons, one between the superficial and deep tendons and one, the largest and most easily distensible, underneath the deep tendons.

The exact arrangement of the tendon sheaths in the proximal portion of the palm and over the wrist is subject to considerable variation. The important fact from a practical standpoint is that in the majority of instances the radial and ulnar bursae communicate with one another by way of an intermediary sheath, so that an infection of the tendon sheath of the thumb and radial bursa extends to the ulnar bursa and distally along the tendon sheath of the little finger. An infection arising in the tendon sheath of the fifth finger involves the same structures in the reverse order. From these various sites infection may extend to a number of different places as will be indicated later.

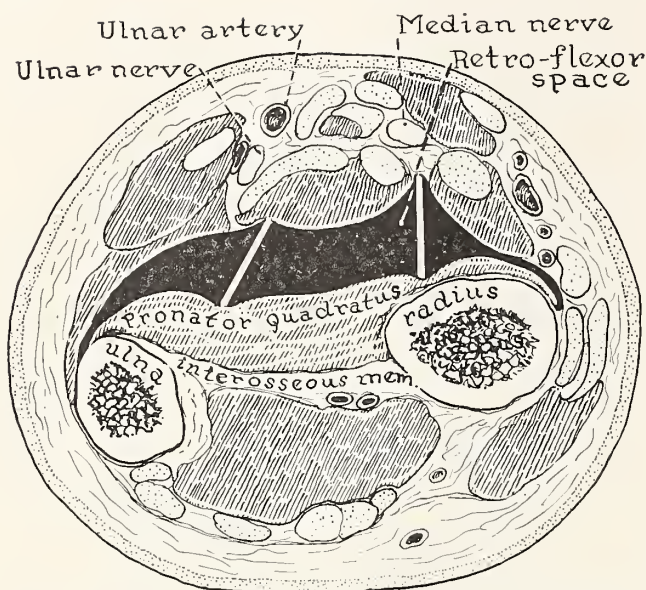


FIGURE 2. The retroflexor space above the wrist where pus is found after rupture of the radial and ulnar bursae. (After Kanavel.)

The diagnosis of a tendon sheath infection is based on symptoms which early in the course of the infection are limited to the area involved, but which tend very quickly to become more difficult of interpretation because of extension of the infection to surrounding tissues. These symptoms are pain, tenderness and other signs of inflammation, frequently out of proportion to the extent of the infected area. The patient holds the affected finger in a slightly flexed position. Any attempt to extend it causes him to wince with pain. By gentle pressure an area of tenderness may be outlined which corresponds accurately to the anatomical outline of the tendon sheath. In infections of the fifth finger Kanavel has pointed out that a point of maximum tenderness may be found just proximal to the point where the distal flexion crease of the palm crosses the flexor tendons of the fifth finger. At this point the tendon sheath lies close to the surface and is not covered by overlying muscles. In every case the dorsum of the affected finger is swollen and edematous because of the direction of lymphatic drainage.

If the infection involves only the index, middle or ring finger there is no doubt as to its location and the freedom of other fingers from infection. With infection of the radial and ulnar bursa the inflamed swollen wrist, with the tense anterior annular ligament drawn like a taut cord across its volar surface, suggests at once the extension of the infection into the forearm. If the infection has begun in the thumb and spread into the radial bursa it may occasionally be difficult to determine whether the ulnar bursa and the tendon sheath of the fifth finger are involved. In

such a case the position in which the fifth finger is held, the presence of pain on attempted extension of the finger, and the presence of the point of maximum tenderness mentioned above are important considerations. If there is still doubt it is wise through a bloodless field to make an exploratory incision in the palm over the sheath of the flexor tendons of the fifth finger. If no infection is present no harm will be done by such a procedure, but irreparable injury may be done if the infected area is not drained. If the primary infection involves the tendon sheath of the fifth finger the same considerations apply with reference to the radial bursa and the flexor tendon sheath of the thumb. Since in more than 80 per cent of cases the radial bursa communicates with the ulnar bursa above the wrist it is common to find involvement of both.

In cases which have been neglected for four or five days, or which have been inadequately drained the median and ulnar nerves may be so compressed by the pressure of the exudate above the wrist as to be partially anesthetized. In such cases the characteristic symptoms men-

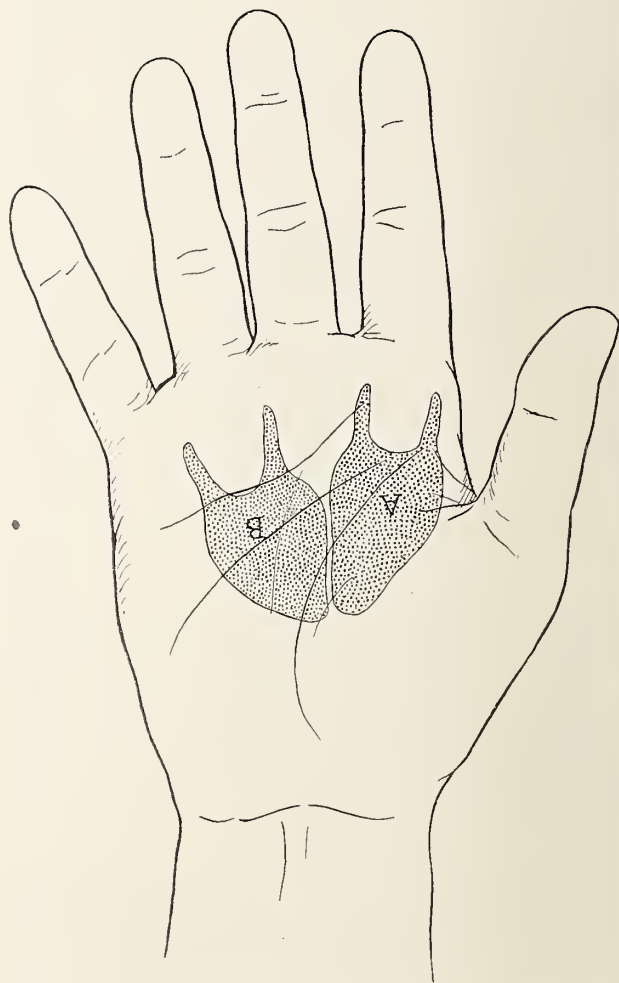


FIGURE 3. Diagram of an x-ray picture of a hand in which the thenar and middle palmar spaces have been filled with a bismuth paste. (After Kanavel.)

tioned above—particularly the excruciating pain caused by forced extension of the affected fingers—are masked, but the history, the location of the primary lesion, the bulging swelling above the wrist, and the general symptoms of severe infection make the diagnosis clear.

When rupture takes place from the tendon sheaths of the index, middle or ring fingers the pus spreads into one of the fascial spaces of the palm, and forms an abscess of the thenar space or the middle palmar space. (These will be discussed under infections of the fascial spaces.) When rupture takes place from the radial or ulnar bursa the pus at first lies in the retroflexor space between the flexor tendons and the pronator quadratus (Figure 2). As it spreads upward it dissects between the superficial and deep flexor muscles and tends to become superficial along the ulnar side of the upper third of the forearm. In such an event the entire hand and forearm are dusky red, swollen, tense and edematous. Vesicles or blebs may cover large areas of the affected extremity. Because of the extent of the involvement and the retention of a large amount of pus under pressure toxic absorption proceeds at a rapid rate and the general symptoms of severe infection—high fever, rapid pulse, profuse perspiration, prostration, and not uncommonly delirium—indicate the extreme gravity of the condition.

THE FASCIAL SPACES OF THE PALM

These include the thenar space, the middle palmar space and the lumbrical canals which extend distalward from the thenar and middle palmar spaces and the lumbrical muscles. Infection of the fascial spaces of the palm may occur by direct inoculation and as the result of deep penetrating wounds, but most commonly occurs as the result of extension of a tendon sheath infection.

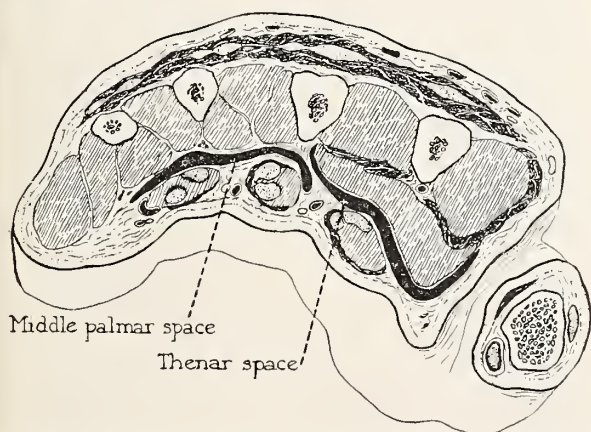


FIGURE 4. Cross-section of the hand, above the metacarpophalangeal joints, to show the relation of the thenar and middle palmar spaces to the surrounding tissues. (After Kanavel.)



FIGURE 5. The characteristic deformity present in an infection of the thenar space.

The thenar space lies upon the adductor muscles of the thumb partially covered by the short muscles of the thenar eminence, by the flexor tendons of the index finger and by the accompanying digital vessels and nerves (Figures 3, A; Figure 4). It extends ulnarward to the middle metacarpal bone. The middle palmar space lies deep in the palm upon the interosseous muscles, underneath the flexor tendons of the middle and ring fingers (Figures 3, B; Figure 4). On the radial side it is bound by the middle metacarpal bone. On the ulnar side it is partially covered by the overlying distal end of the ulnar bursa.

Tendon sheath infections arising in the index finger tend to rupture into the thenar space. Tendon sheath infections arising in the middle and ring fingers usually rupture into the middle palmar space. In neglected cases tendon sheath infections starting in the thumb may rupture into the thenar space, and tendon sheath infections arising in the fifth finger into the middle palmar space. With pus under great tension rupture from one space into the other may take place.

The symptoms of thenar space infection are pain, tenderness and swelling of the thenar eminence. Normally the thenar eminence is the most prominent portion of the palm, but with infection in the thenar space it stands out in such a pronounced fashion as to elevate the thenar eminence still more above the remainder of the palm and force the thumb away from the hand (Figure 5). The dorsum of the web between the thumb and index finger is swollen and edematous. Eventually there is extension of the infection along the lumbrical canal on the radial side of the index finger, with tenderness and swelling on the dorsum of the hand between the index and middle fingers.

With infection of the middle palmar space the striking symptoms are the loss of the normal



FIGURE 6. The characteristic deformity present in an infection of the middle palmar space.

concavity of the palm and the edema and swelling of the dorsum of the hand (Figure 6). Because the pus lies under the flexor tendons and the firm palmar fascia the palmar swelling is not pronounced, but it is sufficient to change the normal concavity of the palm into a slight convexity. Because of the direction of lymphatic drainage the dorsum of the hand is swollen and edematous, but pus will not be found on the dorsum except in those neglected cases in which the infection has extended distalward along the lumbrical canals and passed to the dorsum in the subcutaneous tissue about the web of the fingers. Only in grave, neglected infections in which osteomyelitis has taken place does pus find its way through the barrier of deep fascia, interosseous muscles, and metacarpal bones from the palm to the dorsum of the hand.

TREATMENT OF TENDON SHEATH AND FASCIAL SPACE INFECTIONS

The treatment of infections of the tendon sheaths and fascial spaces is to secure adequate drainage as soon as the condition is recognized. This should be done under a general anesthetic such as nitrous oxide, ethylene or ether, and through a bloodless field secured with the aid of a constrictor.

In draining the tendon sheaths of the fingers the incision should be made well to the side of the finger (Figure 7), so as to avoid the digital nerves and blood vessels, the flexion creases on the palmar surface, and so as to prevent herniation of the tendon from its sheath, a complication that occurs very promptly if the sheath is opened through the middle of the palmar surface of the finger.

On incising a finger with infection of the tendon sheath one is always surprised by the extensive swelling of the subcutaneous tissues, and by the manner in which they seem to fill the entire wound and obstruct the deeper structures from view. Unless this edematous tissue is well retracted it is impossible to secure a clear view of or even to expose the deeply lying tendon sheath. If one can expose the sheath for a little distance before nicking it with the scalpel he will find, instead of a thin translucent membrane through which the shining tendon may be discerned, a grayish edematous structure which resembles the edematous peritoneum overlying an appendiceal abscess. The moment it is opened the pus pours out. In very early cases the pus may not yet fill the sheath, and may appear only when the tendon is raised from the posterior surface of its sheath.

If the flexor sheaths of the thumb and little finger are involved the incisions must be extended upward (Figure 7). One should avoid cutting through the muscles of the thenar eminence in the case of the thumb by making a curved incision to the ulnar side of the thenar

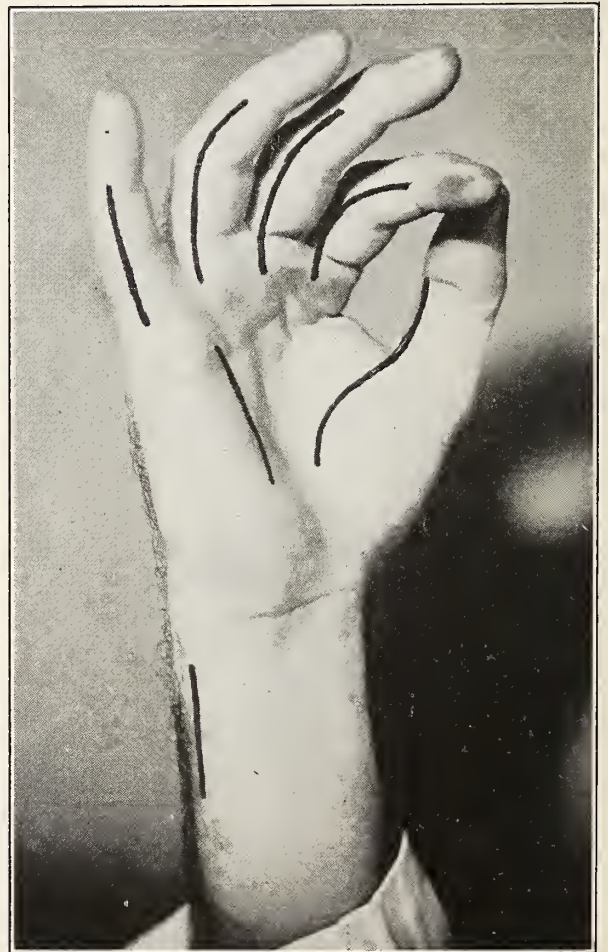


FIGURE 7. Lines of incision for drainage of the tendon sheaths.

eminence and retracting the thenar muscles radialward, and should remember that the flexor tendons of the little finger run obliquely upward and radialward and not in the line of the fifth metacarpal bone. Such an infection also requires an incision on the ulnar side of the forearm to drain the upper, most distensible portions of the ulnar and radial bursae. (Figure 7). It should always be made at the side, never over the middle of the volar surface, for the pus lies underneath the flexor tendons (Figure 2). A median incision in such a case inevitably leads to extensive fibrosis and destruction of tendons and frequently to operative or postoperative injury of the median nerve (Figure 11).

The middle palmar space is drained through an incision between the middle and ring fingers, extending from just above the web of the fingers to the middle flexion crease of the palm. The flexor tendons, digital nerves, and blood vessels of the middle finger are retracted to the radial side and the corresponding structures of the ring finger to the ulnar side. The middle palmar space, as it lies behind the flexor tendons, is then widely exposed. Occasionally an additional incision over the lumbrical canal of the ring finger helps to make drainage more complete and hasten recovery. Though the incision indicated for drainage of the thenar space (Figure 8) a pair of forceps or Kocher dissector is passed upward



FIGURE 8. Line of incision for drainage of the thenar space.



FIGURE 9. Aluminum splint for maintaining the hand in the position of function during the period of healing.

and ulnarward directly into the abscess cavity as it lies upon the adductor muscles of the thumb.

If drainage incisions are correctly located and of adequate length, an incision on one side of the affected fingers and on the ulnar side of the forearm, in the case of ulnar and radial bursa infections, suffices for drainage. The use of through and through drainage above or underneath a flexor tendon should be carefully avoided. It is the surest possible method of causing necrosis of the tendons.

With infections of the middle palmar and thenar spaces, drains should never be inserted through and through from the palm to the dorsum of the hand. The spaces in question are separated from the dorsal surface by a number of anatomical layers (Figure 4). To plunge a pair of forceps through the deep volar fascia, the interosseous muscles, between metacarpal bones and through the dorsal aponeurotic and subcutaneous layers in order to drain an accumulation of pus in one of the fascial spaces of the palm is to show a complete disregard for the principles of surgical treatment and to render almost certain the development of osteomyelitis and the formation of persistent sinuses.



FIGURE 10. The functional result in a patient with infection of the radial and ulnar bursae which had ruptured into the forearm.

AFTER TREATMENT OF HAND INFECTIONS

In order to stop venous cozing after operations and to keep wound edges widely separated drainage wounds are lightly packed with gauze impregnated with petrolatum. Occasionally rubber tissue is used instead. Tubes are never used because pressure necrosis of tendons and tendon sheaths and extensive fibrosis involving tendons and nerves inevitably result from their use.

In dressing the hand a large sterile towel is laid on the arm board, covered with abdominal pads and sterile dressings and the outstretched arm is laid on the bed of dressings. More dressings are added to cover the arm; the dressings are saturated with a hot sterile boric or salt solution and the edges of the towel brought together to enclose the whole. The hot solution or sterile water is added at two hour intervals without changing the dressing and a powerful electric light is suspended above the arm to help maintain the heat.

At the end of twenty-four hours the dressings are removed and a sterile dressing reapplied with the same care that was used in applying the original dressing. If one can avoid adding secondary infection, particularly to streptococcic infections of the tendon sheaths, as has been so well shown by Cleveland² and by Garlock³, the tendons may be saved and a complete restoration of function secured in a considerable proportion of cases.

The petrolatum gauze is removed at the first or second post-operative dressing. No drainage material is reinserted after removal of the original drains.

As soon as the acute symptoms have subsided, usually at the end of three or four days, an arm bath, used for fifteen or twenty minutes twice daily, is substituted for the continuous moist dressing. After being soaked in a hot sterile solution the arm is laid on a sterile towel, allowed to dry for a half hour under an electric light and covered with a dry dressing. While the hand is in the bath the patient is urged to move his fingers gently to prevent the formation of fibrous adhesions. Simply moving the fingers through their complete range of motion once or twice daily during the period of forced immobilization will suffice to prevent the formation of crippling adhesions. In addition to the dry dressing a light aluminum splint is applied to maintain the hand and the fingers in the position of function⁴ (Figure 9). As soon as the danger of lighting up the infection has passed physical therapy and active exercises are begun so that restoration of function may keep pace with the healing of the tissues⁵ (Figure 10).

In neglected cases in which extensive contractures have been allowed to develop, often because of prolonged immobilization of the hand in a big moist dressing with the fingers extended and the thumb lying along side the fingers, considerable improvement may still be secured by the persistent use of physical therapy, of exercises designed to mobilize the affected fingers and of properly designed splints which bring elastic tension to bear on the contracted tendons



FIGURE 11. The result in a patient with a neglected tendon sheath infection which was permitted to go on to destruction of all the flexor tendons, of the median and ulnar nerves. (Note the deformity resulting from the incisions made for drainage.)

and stiffened joints. Carefully planned operative procedures, designed to free the fibrosed tendons and nerves from the scar tissue which binds them to one another and to the surrounding tissues and to separate them from underlying bone and covering skin with thin flaps of fat, may be utilized in selected cases. Substitution of new tendons for tendons which have been destroyed and mobilization of ankylosed joints by excision of bone and interposition of thin flaps of fat will bring about a partial restoration of function in those unfortunate cases in which the hand is held immobilized in a vise of scar tissue (Figure 11).

SUMMARY

The major infections of the hand are the acute infections of the lymphatics, of the tendon sheaths, and of the fascial spaces of the palm. They should be recognized without difficulty for they present definite and unmistakable diagnostic criteria.

Lymphatic infections should be treated conservatively and operated upon only when there are unequivocal signs of pus formation. Infections of the tendon sheaths and fascial spaces should be carefully and adequately drained as soon as the diagnosis is made.

In the post-operative care of hand infections the prevention of secondary infection, early mobilization and the maintenance of the hand in the position of function during the period of enforced immobilization are important details of treatment.

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NON-TRAUMATIC CEREBRAL SIGNS

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The cerebrum, by reason of its encasement in the strong bony cranial vault is securely shielded from much trauma. Cuts, light bruises and many sharp blows are absorbed by the scalp or spherical bones of the skull. This very rigid protecting wall, however, so limits the expansibility of the brain that pathological conditions developing within the cranium are often more damaging than would be, were more space available. Hemorrhages, tumors, invasions, edema, are without

doubt more serious because of the crowded conditions inside the skull. The swelling which is present in most pathological tissue changes exerts a force which, when occurring within the cranium, must proceed toward points of least resistance. The medulla oblongata may be thus pushed downward on the rigid foramen magnum, resulting in disturbances of the respiratory and cardiac centers. Again the force may be exerted along the optic nerve and give the nerve head the choked disc appearance.

The cortex of the cerebrum is believed to be the "seat of consciousness". It is experimentally provable that loss of consciousness is more often attendant upon disturbances in the cortex than upon disturbances elsewhere in the central nervous system. A de-cerebrated animal is a more or less automatic preparation, incapable of performing acts that require memory or other functions of consciousness. Unfortunately it is often impossible to find in the cortex any pathological change to account for very frankly abnormal conscious states. The disturbances of consciousness in stupor, coma, delirium, narcosis, anesthesia are only explainable on a speculative or theoretical basis. Sleep, while not a pathological state, is certainly a marked divergence from the normal conscious state, and yet our physiological explanation of this state is yet only theoretical. Again the marked variation from the rational conscious state seen in the true mental diseases, such as dementia precox or manic depressive insanity must be regarded as signs referable to the cerebral cortex, yet our present methods of examination have not yet revealed any definite pathology there.

Much has been learned of the cerebral cortex. Its histological structure has been carefully worked out. Its functions have been only partially localized. The motor, sensory, visual, acoustic areas and several association areas near the above named areas have been well investigated and connected with functions. Yet there is still a large part of the cortex, now spoken of as silent areas, which awaits exploration. Some new method of investigation must be hit upon to chart the functions of these silent areas.

Many diseases of known pathology give signs and symptoms of a disturbed cortex as secondary to the principal trouble. In typhoid fever, pneumonia and diseases accompanied by high fever we have such signs. The coma of diabetes melitus, the coma of uremia, the convulsions in uremia or eclampsia are secondary cerebral signs. The toxemia carried via the blood stream to the cortex explains such signs. The quality and

quantity of the toxic material will determine the severity of the signs.

Primary non-traumatic cerebral signs may be divided for convenience of discussion as follows:

1. Signs with vascular changes.
2. Signs with invasion.
3. Signs with pressure.
4. Signs without pathology.

Perhaps the most commonly encountered cerebral condition of known pathology is cerebral hemorrhage. The vessels of the cerebrum are less securely surrounded by supporting connective tissue and are for this reason more prone to rupture when diseased. The vessels of the eye are likewise little supported and subject to hemorrhage. Arterio-sclerosis, hypertension, syphilitic arteritis predispose to hemorrhage and the accident occurs more often after middle life. It is important to recall that the arteries of the brain are end-arteries, so that their interruption means death to the tissues deprived of circulation. The rupture of a cerebral vessel need not, however, be attended by serious consequences. Autopsy findings show areas of softening where no symptoms during life pointed to interrupted circulation. It is, when a vessel supplying a recognized functional area breaks, that we get the signs of cerebral hemorrhage. A headache alone may be the sign shown, and yet this symptom alone cannot be interpreted as a sign of hemorrhage. The middle cerebral artery, perhaps, supplies more of the important structures than either the anterior or posterior cerebral arteries, since its branches supply the basal nuclei, the internal capsule and a large portion of the cortex in the Rolandic area. The lenticulo-striate branch of this artery, often called the "artery of cerebral hemorrhage" supplies blood to the internal capsule. Its rupture deprives this nerve fiber tract of its blood supply and causes a spastic hemiplegia. No other artery of its size in the body supplies so important a region nor can cause such serious consequences by being interrupted. Less common than hemorrhage, but serious in its ultimate results is the blocking of a cerebral vessel by a thrombosis, or by an embolus. An embolus comes by way of the blood stream from an infected area elsewhere in the body. A thrombosis follows embolism or forms in a diseased artery wall and by enlarging, blocks the circulation.

The occurrence of an apoplectic stroke is the most common sign of a serious vascular lesion in the cerebrum. Before such an attack, headache, dizziness, anxiety, paresthesia, convulsive movements, nausea, vomiting, are often present. Loss of consciousness is usual, more common in hem-

orrhage. Each case will present signs varying with the extent and location of the lesion. Variation in the pupils or chest excursion may be the first localizing signs noted. A difference in the muscle tonus or reflexes in the extremities will often give the clue to the location of the lesion.

The cerebrum, like other structures, is subject to invasion, either by organisms or new growths. A bacterial invasion results in an encephalitis and the signs are headache, drowsiness, somnolence, stupor. Somnolence being the most common sign. Following some infectious disease, such as measles, influenza, scarlet fever, syphilis, the above signs may develop when the usual symptoms of such an infection seem to have receded.

In encephalitis lethargica we have a virus which appears to have a predilection for nerve cells. Two cases of drowsiness, somnolence were recently observed. One showed marked confusion. Neither showed pupillary signs or neurological signs. Both were found to have positive blood Wassermann tests, and improved promptly under antisiphilitic treatment. Here we apparently had an encephalitis of syphilitic origin.

In general paresis we have a damaged brain due to an invasion by the *spirochæta pallida*. Brain abscess is a localized invasion, as is an extension of an infection from a mastoid or a nasal sinus. One class of brain tumor, the glioma may be so slow in growth that its extension is equivalent to an invasion. No true line of demarcation being present. The signs of localized invasion will be cranial nerve palsies, monoplegias, hemiplegias, depending upon the area suffering damage.

Pressure on localized areas of brain tissue rapidly destroys its function and leads to degeneration with permanent loss of function. The enlargement of any structure within the cranium must take place at the expense of ventricular space, or of brain tissue. Intracranial tumors, cysts, aneurisms, abscesses, gummas, etc., if of slow growth and moderate size often fail to give signs of increased intracranial pressure and may only manifest their presence by their encroachment on some nerve tract, blood-vessel or area of known function. In such a case there will appear signs such as, disturbances of cranial or spinal nerve function, changes in the reflexes. The classical symptoms of brain tumor, viz: headache, vomiting, choked disc, are signs of increased intracranial pressure, and when present may mean an enlarging or already enlarged new growth, yet their absence does not exclude a new

growth. When the above classical signs are present, and no localizing signs appear, the new growth is probably in a silent area. An x-ray will only occasionally show a shadow of a new growth. An x-ray taken after air has been injected into a lateral ventricle will sometimes show a displacement or encroachment on ventricular space.

A striking example of damage done by intracranial pressure is shown in hydrocephalus. In the child the brain suffers even though the cranial bones yield to the pressure. In autopsies of the demented, hydrocephalus is not an infrequent finding.

The cerebrum shows signs as a reaction to certain drugs. These signs vary with the drug and are fairly familiar. Alcohol is unique when given in mildly toxic doses, in that it appears to blunt the higher sensibilities; to release the mental activity from the inhibitions of moral censorship, appearing temporarily to change the character of an individual. Ether, chloroform, ethyl chloride, nitrous oxide, are promptly taken up by the brain cells leading to loss of consciousness. Many drugs slow the cerebral activity. Caffeine alone appears to increase cerebral activity.

In the above described conditions we have some causal agent known and responsible for the cerebral signs. There is yet to be considered a large group of cases where there are signs pointing to disturbances in the cerebrum, in which no causal agent can be found nor does the cortex reveal any changes from the average. I refer now to the true mental diseases. In general paresis there are present marked pathological changes. In arteriosclerosis with mental signs, there are found pathological changes. Yet in the most common of mental diseases, dementia precox, the examination of the cortex of many thousand cases by pathologists has failed to reveal any definite or characteristic pathological change. This truly mental disease develops usually in early life and a very profound change of character takes place. There is a loss of interest in life activities, a blunting of the emotions, a poor appreciation of realities, with a tendency toward fantasy, a development of peculiarity in conduct and various trends of thought with delusions often of a persistent nature. The individual ceases to think of the future. He becomes seclusive, often sluggish, unresponsive, antisocial. Hallucinations of sight, hearing or feeling are often present. The body functions are fairly average, though they may become sluggish. The appetite is fairly average, except in certain cases where food is

refused. After the disease is well established many put on weight. Such individuals are incapable of caring for themselves and must be institutionalized. The brains of cases of dementia precox have been subjected to most painstaking dissection and histological study and no changes have been found to account for the signs.

A second large group of mental disease is manic depressive insanity. The signs are those of marked variation in the thought processes, either acceleration or retardation; emotional excitability or depression; motor-hyperactivity or retardation—here again the signs point to the cerebral cortex, but no pathological changes are found.

In epilepsy we have a disease characterized by convulsions and a gradual mental deterioration, at times only mild, more often a profound mental loss. In focal epilepsy, epilepsy following brain injury, and a small per cent of epilepsy showing new growths or pathology in the brain, we have a causative factor to point to. Yet the cortex of the greater percentage of cases regarded as idiopathic epilepsy show no characteristic variation from the average.

Cerebral involvement is suggested either primarily or secondarily by any of the following:

Headache, drowsiness, stupor, coma, unconsciousness, delirium, convulsions, loss of speech, variations in the reflexes, paralysis, involuntary muscle contractions, ataxia, amnesia, mental confusion, illusions, delusions, hallucinations.

The history of the mode of onset, and time elapsing since first symptoms, is invaluable in disturbances of this character; very often the patient is unable to give this, and friends and relatives must be interviewed. A family and personal history are of vital importance in any case where truly mental signs are in evidence.

When fever is present the various constitutional diseases must first be thought of. A general physical examination including urinalysis, blood-pressure, muscle tone and function should precede a neurological study. When no toxic signs are present and the physical and neurological examinations are negative, the mental disorders are next to be considered. Where changes in the reflexes, variations in the motor or sensory functions or paralysis of the cranial nerves are present an intracranial lesion must be considered. A physical, a neurological and a psychiatric examination are indicated when cerebral signs are present. It is from the proper evaluation of the finding of such an examination that the diagnosis will come.

SUMMARY—OUTLINE

1. The practically closed condition of the cranium often renders intracranial conditions more serious.
2. The cerebral cortex is the "seat of consciousness".
3. The functions of the cortex are only partially demonstrable.
4. General diseases cause signs referable to the cortex.
5. Vessel changes of cerebrum and signs.
 - a. Hemorrhage.
 - b. Embolus and thrombosis.
6. Invasion of cerebrum and its signs.
7. Pressure on cerebral tissue and its signs.
8. Action of drugs on cerebrum.
9. Cerebral signs without pathology.
 - a. Dementia precox.
 - b. Manic depressive insanity.
 - c. Epilepsy.
10. Cerebral signs and their evaluation for diagnosis.

RADIUM IN HODGKIN'S DISEASE

A Report of Ten Cases

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Hodgkin's disease is one of that group of maladies characterized by progressive lymphatic enlargement, the classification of which floundered in hopeless confusion for many years. There is considerable doubt, and justly so, that the cases described by Thomas Hodgkin in 1832 were of the same nature as those we now designate by his name. Not until the work of Reed,⁶ later confirmed by Longcope,³ Symmers⁸ and others, was the fact established that there exists a distinct type of non-tuberculous, chronic inflammatory lesion in lymph glands. Attempts to determine the etiology have been less productive of result and the exciting cause remains unknown while the pendulum of opinion swings between the infectious and neoplastic theories. At present the preponderance of evidence points to an infectious origin.

The general treatment consists of rest, arsenical compounds and ferruginous tonics. Extirpation of the glands gives temporary improvement. Moynihan⁵ and W. J. Mayo⁴ each performed splenectomy in one instance but observed no benefit. In 1903 Senn⁷ reported two cases treated with x-ray and since then irradiation has gradually become one of the principal therapeutic measures.

In the following series of ten cases, the histories and examinations were all negative for tuberculosis; the blood Wassermann reactions were negative; the diagnosis in each case was confirmed by biopsy before the inauguration of treatment, and in five cases was again confirmed at autopsy.

The technic of treatment was the same in every case; the quantity of radium being the only varying factor. All irradiation was externally applied. Due to the irregularity of enlargement and position of the glands, I consider the use of buried radium impractical. The screening employed was 5 cm. square and 2 cm. thick and composed of 15 mm. balsa wood, 2 mm. lead, and 2 mm. para rubber. The whole enclosed in two layers of zinc oxide plaster. On top of the pack next the wood was placed parallel tubes of radium equidistant from each other.

Case 1. B.M., male, aged twenty-four, occupation farmer and trapper.

He complained of swelling of the right side of the neck and jaw. The enlargement was first called to his attention five months previously by tightness of the collar; since then it had progressively grown larger.

Examination showed the right superior deep cervical glands discrete, firm and the size of English walnuts; smaller glands were felt in the submaxillary triangle. Biopsy of a gland revealed lymphocytes, eosinophiles and Reed cells.

The neck area on both sides was marked off and radium applied on packs. A total of 12,000 milligram hours was administered.

There was no evidence of recurrence at last examination, two years after treatment.

Case 2. P. G., male, aged forty-nine, occupation farmer.

Patient complained of masses in the neck, axillae and groin; marked weakness and profuse night sweats. One and one-half years previously he had noticed a hard swelling on the right side of the neck. Involvement of the axillary and inguinal regions followed later.

Upon examination it was easy to palpate masses in the cervical chains and the supraclavicular, axillary and inguinal spaces; the enlargements were more fused than discrete. The spleen was palpable 2 cm. beneath the left costal margin. No increase in the size of the liver could be demonstrated. Biopsy of a gland confirmed the diagnosis.

He received radium packs over the spleen and gland areas and was given a total dosage of 28,000 milligram hours.

One month later the spleen was not palpable and there were no masses in the groin or axillae. The glands in the neck were much smaller. The patient felt stronger and enjoyed a good appetite.

Death occurred from an intercurrent infection, six months after conclusion of treatment.

Case 3. J. S., male, aged thirty, occupation laborer.

He complained of masses in the axillary and inguinal regions; weakness, profuse night sweats and pruritus. Weakness began eight months previously and he first noticed lumps under right arm about the same time.

Examination revealed firm, discrete glandular enlargements the size of filberts, in the inguinal and axillary regions. A few smaller glands were felt in the left supraclavicular space. The spleen was not palpable. Biopsy confirmed the diagnosis.

Patient received 14,650 milligram hours of radium applied on a pack. He became rapidly worse. Temperature reached 101°-102° F. daily. Pain in the abdomen was complained of almost constantly. The anemia increased and the patient died three and one-half months after beginning treatment.

Autopsy showed enlargement of the retroperitoneal glands throughout the abdominal cavity. They were very fibrous and on section presented a yellowish-white color. The spleen was moderately enlarged (weight 280 gms.), it was firm and cut with increased resistance and on section showed several yellowish-white patches. The liver was also increased in size and was studded with white-like patches. Sections from the lungs, pancreas and thymus showed the same pathologic picture.

Case 4. W. G., male, aged twenty-nine, occupation clerk.

He first noticed lumps in the neck six months before; very recently similar lumps had appeared in the axillae and left groin. The masses had increased in size moderately. His most distressing symptoms were extreme weakness (he was unable to support himself without assistance) and night sweats.

Examination revealed firm, discrete glandular enlargements the size of filberts, along the cervical chains on each side of the neck and in the axillary and inguinal regions. Blood examination showed a marked anemia and low hemoglobin (3,250,000 erythrocytes, 40 per cent hemoglobin). Biopsy of a lymph node showed several areas of necrosis infiltrated with polymorphonuclear leucocytes and eosinophiles. There were also many eosinophiles and typical Reed cells scattered between the reticulum cells. Radium packs were placed over the palpable gland areas on successive days. A total dosage of 18,000 milligram hours radium was given.

Three weeks after cessation of treatment there were no masses to be palpated and the patient was gaining rapidly in strength. Ten weeks after entering the hospital he returned home with a slightly below normal erythrocyte count, strength almost entirely regained and no objective evidence of illness. This was the most remarkable response to radium I ever saw. When last heard from, twenty-two months after treatment, he still enjoyed good health.

Case 5. C. G., male, aged twenty-seven, occupation farmer.

He stated that one year before he had noticed his

neck becoming larger, especially on the right side. It continued to increase in size while his strength diminished. He also complained of rapid breathing and cough on exertion.

Examination showed an unusually well developed muscular body. Neck very considerably enlarged on the right side. Diameter at collar band, 69.5 cm. The enlargement extended well down into the shoulder area between the anterior border of the trapezius muscle and the clavicle. The masses felt firm and somewhat fused together. No glands could be palpated elsewhere. Biopsy of a gland showed Reed cells, eosinophiles and lymphocytes.

Due to the dyspnea on exertion and also the cough, which was increasing, a roentgenogram of the chest was made. The plate showed a marked increase in the hilus shadow on the affected side, with an adjacent dense area measuring 2x4 cm. in the plate and also an indistinct area in the apex of the right lung. In light of such evidence a diagnosis of mediastinal invasion was made.

Heavy doses of radium on packs were given over the neck, supraclavicular, infraclavicular and suprascapular spaces as well as over the right anterior chest wall at the level of the second, third and fourth costal spaces. He received a total dose of 27,000 milligram hours.

The swelling in the neck promptly disappeared but there was considerable reaction in the skin which required eight weeks to heal. By this time the patient was much improved in general condition and he no longer coughed.

Another roentgenogram of the chest showed no change except a decreased density of the shadow at the apex of the right lung. Patient insisted on returning home eleven weeks after entering hospital.

Six months later he returned suffering from pronounced dyspnea and with signs of fluid in the chest. Further irradiation was considered contraindicated. One month later he died.

Autopsy revealed a mediastinal 9x7x4 cm., firm in consistency and on section it appeared granular and yellowish-white. The right plural cavity was filled with straw-colored fluid. There were large masses in place of the bronchial glands at the bifurcation of the trachea. The right lung was moderately contracted and there was considerable fibrosis present in the section taken from the apex. The aorta was surrounded with yellowish-gray glands. In the abdomen the retroperitoneal glands and those along the lesser curvature of the stomach were enlarged. Sections taken from the lung, liver, spleen and pancreas showed the same pathologic picture.

Case 6. C. E., male, aged twenty-four, occupation salesman.

He complained of lumps under the arms and said they had been present about one and one-half years. The growth had been very slow.

Examination showed an anemic slender man of diminished strength. There was an enlargement in each axilla comparable in size and shape to that of a baseball; firm in consistency and painless. No

other palpable glands were present. A biopsy of the tissue was reported as Hodgkin's disease.

Radium packs were employed over the affected area. A total dosage of 5,400 milligram hours was given. The masses almost disappeared after a lapse of three weeks, but the general condition of the patient remained the same.

Two months later a marked change occurred. While lying in bed he was suddenly seized with violent abdominal pain and expired in less than half an hour.

Autopsy showed the cause of death to be a ruptured duodenal ulcer (he had at no time showed any symptoms of gastrointestinal disturbance). All the lymph glands from the lesser curvature of the stomach to the rectum were enlarged and grayish in color. In the proximal part of the jejunum there were many ulcers in the mucosa varying from 0.5 to 2 cm. in diameter, showing sharply demarcated edges and clean bases. Some of these extended deep into the muscularis. The ulcer in the duodenum which had ruptured appeared to be of the same type. On cut section of the spleen, no nodules were found but the microscopic examinations of the peripancreatic and mesenteric glands was characteristic of Hodgkin's disease.

Case 7. L. A., male, aged twenty-eight, occupation laborer.

He complained of lumps in the neck and pruritus, beginning nine months before. His strength seemed to be about normal and he had been doing his regular work until referred for treatment.

Examination showed bilateral enlargement of the cervical and submaxillary glands; those on the left side were about the size of plums, on the right they were somewhat smaller. No other glands in the body were palpable and I was unable to feel the spleen. A biopsy of a gland revealed lymphocytes, Reed cells and some eosinophiles.

Radium packs were applied over the different neck areas. Total dosage, 9,600 milligram hours. In three weeks the enlargements had almost totally disappeared and the pruritus ceased on the fifth post-irradiation day. He returned to work six weeks from the time treatment was started.

Eight months later examination showed a recurrent enlargement of the cervical glands to about one-half the size they were, prior to treatment. They felt hard and fibrous. Also there was a mass the size of a walnut in the right axilla.

Radium packs were again placed over the affected areas. This time he received a dosage 12,000 milligram hours. The axillary enlargement disappeared; the cervical glands remained palpable but small.

One year after the last irradiation (two and one-half years after the first appearance of the disease) he was still free from symptoms and working daily.

Case 8. S. B., male, aged twenty-six, occupation lumberman.

He stated he began to lose strength one year before and about two months later he first noticed lumps on the sides of his neck. Still later a lump

appeared in the right arm-pit and was followed by another under the left arm. Next he observed masses in the groin, and lastly, a large mass in the left side of the abdomen.

Examination showed a very emaciated man, extremely weak. Glands the size of hickory nuts were felt in the cervical, axillary and inguinal regions. They were discrete and firm. The spleen was palpable 5 cm. below the costal margin. Biopsy of a gland confirmed the diagnosis of Hodgkin's disease.

The area over the spleen as well as the glandular sights were treated with a radium pack. Total dosage 23,500 milligram hours.

Ten days later the spleen was no longer palpable and the glands were smaller in size, but the patient was suffering from a rather severe diarrhea. An examination of the stools was made for amebae, following the technic of Kofoed,² with negative results. The condition was stubborn and resisted treatment, and by its action the patient was still further debilitated. His condition gradually became worse and he died fifty-seven days after entering the hospital.

At necropsy a yellowish-white mass was found in the mediastinum measuring approximately 8x6x8 cm. The aorta was almost surrounded with glands. The abdomen contained 750 cc. of thin, straw-colored fluid. The mesenteric, retroperitoneal, peripancreatic and portal glands were enlarged, yellowish and cut with increased resistance. The lymphatic patches of the ilium were considerably thickened and on section had the same appearance. The spleen weighed 380 gms.; it was firm and dense on section. Sections from the spleen, liver, pancreas, lymphatic patches and glands all showed the same characteristic microscopic picture.

Case 9. J. H., male, aged twenty-four, occupation salesman.

Two and one-half years before I saw him, he began to lose weight and strength and had occasional night sweats. At that time, or a little later, he noticed an enlargement of the neck on one side. Since then the lumpiness had extended to many parts of the body, including the postauricular, suprascapular, supraclavicular, axillary, inguinal and popliteal spaces. His strength gradually decreased, and pruritus became very bothersome, especially at night. There was also some abdominal pain and partial paralysis of both legs.

Examination revealed an emaciated individual with masses the size of tennis balls almost surrounding the base of the neck above the clavicle, and preventing any movement of the head without pain. There was some edema of the face evidently due to mechanical pressure exerted by the glands upon the veins. The spleen was enlarged 4 cm. below the costal arch; the liver could not be palpated. The patient had a well marked paraplegia. A biopsy of a gland confirmed the diagnosis.

The spleen and gland areas were treated with radium placed on a pack. The total dosage was 31,000 milligram hours.

Three weeks after treatment there was some re-

duction in the size of the glands. His temperature was seldom above normal, appetite improved and he felt much stronger. The edema of the face disappeared and there was no pain in the neck or abdomen. This improvement lasted for five months, after which he gradually grew worse, and died eight months after receiving treatment.

Autopsy showed involvement of practically all the glands with numerous well demarcated, grayish nodules in the thymus, lungs, liver, pancreas, spleen and left kidney. The spleen was moderately enlarged and weighed 325 gms. The retroperitoneal, mesenteric and perigastric glands appeared dry, opaque and firm. On section the borders of the yellowish-white areas of necrotic tissue were frequently studded with small hemorrhagic dots. The paraplegia was due to a mass that had eroded the bodies of the eighth, ninth, tenth and eleventh thoracic vertebrae and had grown caudally along the dura mater, compressing the spinal cord.

Case 10. W. A., aged twenty-seven, occupation teacher.

He complained of a lump on the right side of the neck, of six months' duration.

Examination disclosed the glands of the superior deep cervical chain palpable on the right side. Two of the largest glands were the size of pecans. No other glands were palpable, nor could the spleen be felt. Roentgenograms of the teeth were negative; there was no pyorrhea. The tongue, tonsils and nasopharynx appeared normal. A biopsy of the largest gland showed the microscopic picture of Hodgkin's disease.

The patient received 11,000 milligram hours of irradiation from radium screened on a pack. The area covered included the cervical chains, submental and submaxillary gland regions, on both sides of the neck.

One month later no glands were palpable. One year later, at last examination, no glands were palpable.

DISCUSSION

Since we do not know the cause of Hodgkin's disease and understand but little of the biological effects of radium, it is unbecoming of scientific thought to offer more than a few cautious comments on these cases.

1. The primary response following the initial series of treatment is usually most striking. There is a return of appetite, a gain in strength, a disappearance of pruritus, a decline of temperature and a melting of glandular enlargements.

2. The blood picture shows little alteration after treatment. With the exception of Case 4, I have never observed an appreciable increase of erythrocytes or hemoglobin content, in early or late cases. In some instances a rapid fall of a high leucocyte count may occur but this happens too infrequently to attribute it solely to the effect of radium.

3. In early cases where only a few nodes of a single gland chain are involved, the entire zone as well as the immediately affected area should be irradiated. So far, this type of case had given gratifying results.

4. Advanced cases presenting multiple and extensive glandular enlargements may receive temporary relief, depending upon the amount of irradiation, if any, they have previously received. After a glandular area has once been thoroughly treated with radium subsequent exposures are less effective.

5. In the light of this evidence, I believe I am justified in stating that at the present time irradiation offers the most comfortable and satisfactory outlook for the patient and in early cases will arrest the disease for a so far undetermined length of time.

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FRACTURE OF THE HIP*

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Fractures in general have interested the writer as much as any branch of surgery and for two reasons. In the first instance the professional attendant depends but little, except during convalescence, upon the patient for co-operation—intelligent, willing, or otherwise—and relies mainly upon the maintenance of reduction secured with precision and accuracy. This, of course, means focusing the responsibility sharply upon the attendant. If, therefore, the attendant appreciating the responsibility is not endowed by nature or training with a mechanical bent, or is unwilling to give the matter the time and attention required in the premises, when needed, he would better refer the case to another who will qualify, for bone results good or bad are relatively permanent compared with the results of treatment of other tissues and, also, the results are more demonstrable to every one concerned including judge and jury in some cases. This aspect of fractures is amply demonstrable by reference to the classification of suits for

*Presented before the Midsummer Meeting of the Austin Flint-Cedar Valley Medical Society, Iowa Falls, July 12, 13, 1927.

malpractice against the profession. Further the public aware of the scope of the x-ray determination of the nature and extent of bone injuries has become more critical and exacting in the matter of results. The second consideration of interest in the subject of fractures is the fact that the majority of fractures occur in the able bodied and vigorous, in whom the principal vital functions are normal and therefore are favorable to a healing process in bone. Fractures do occur as a direct result of primary pathological processes as well as in those who are suffering from pathological processes to the extent of impairing repair and leading to delayed bony or fibrous union. In this latter class may be included the senile cases who with their retrograde processes are an important contingent of hip fractures.

In view of these two considerations, theoretically at least, and, as I believe, as a matter of fact and certainly as conducive to the ideal, there is nothing more certain in practice than a good result in the treatment of fractures. I do not mean to deny or ignore valid extenuating circumstances which make the exception to prove the proverbial rule.

The responsibility, the technical knowledge and experience, and the time involved in the treatment of fractures, are comparable to these requirements in treating major surgical lesions elsewhere than in bone, and the attendant is entitled to commensurate consideration. It is for the attendant to indicate the requirements of assistance from the x-ray, anesthesia for the examination and reduction, equipment for the setting, and suitable environment for the maintenance of reduction with an eye to favoring the orderly progression of the principal body function, and during the convalescence provision for whatever of hydro- or mechanico-therapy will be required to obtain a return to 100 per cent of function. Given a good reduction and union the maximum and speed of return of function are often compromised by lack of attention to these terminal features of treatment. The conditions implied should be clearly made known and defined, and any handicaps fully appreciated by the parties concerned at the time and in the presence of witnesses before assuming responsibility for treatment.

Hip fractures are of uncommon occurrence in the young, moderately common in middle age and very common in the elderly. Pathological fractures per se are not considered, but those associated with ordinary senile changes are included. In the first two categories trauma to the

extent of violence is the obvious cause. In the senile with brittle bones and flabby muscles leading to faulty co-ordination, the question sometimes arises whether or not with a sudden movement causing the resultant of forces to act disadvantageously from the mechanical point of view, the fracture does not precede rather than follow the fall.

In injuries at or about the hip, the diagnosis on the doctrine of chances is concerned with fracture. Dislocation is comparatively rare except in a few industries, notably mining, in which greater violence is present in the causation. The presence or absence of the head anteriorly or posteriorly is significant. In cases of marked inversion or eversion gentle rotation will be possible in fracture but not in dislocation. Finally, of course, the x-ray will determine.

Pain in the hip when at rest, and increased with motion, is present in fracture of the hip. *Functio laesa* or disability exists—the heel cannot be raised from the bed and there is loss of power of the patient to overcome external rotation of the extremity; shortening; slack in the fascia lata and above the trochanter in the tensor vaginae femoris, the trochanter rises above Nelaton's line, Bryant's measurement likewise shows a discrepancy between the sides. Crepitus in unimpacted cases may be elicited by gentle but firm traction. In this, much discretion must be used to avoid rotation, or excessive traction, lest a desirable state of impaction be interfered with. In measuring, the extremities should be placed in symmetrical positions, preferably side by side. As discrepancies in length commonly exist without injury, it is important for accuracy to measure the tibia as a check on the measurements of whole length of the extremities. This is well illustrated by one of my cases in whom after recovery a greater length by 1 c.m. of the affected side was accounted for by a greater length to the extent indicated by the tibia of the affected side.

Coming to the refinement of diagnosis between intra and extra capsular fracture, we to-day have in the x-ray a reliable means of determination. The importance of this rests on the fact that extra capsular fractures will as a rule give solid bony union with or without deformity depending upon the position secured at the setting, while intracapsular fractures despite good position secured at the setting and maintained thereafter may give fibrous union only by reason of faulty circulation of the parts. Greater precision and accuracy of apposition of the parts therefore, is implied as the only way

out of this dilemma. As it is incumbent to secure the best possible position in any case, at the setting the question of intra- or extra-capsular fracture is concerned rather with the prognosis than the treatment.

Of greater moment is the question of impaction. The old rule of not disturbing an impacted fracture of the hip has given way to considerable modification since the x-ray examination has shown that many cases of supposedly impacted fractures were really overlapping of neck fragments due to displacement. According to Whitman, the firm genuine impaction is in reality a partial subcapital fracture, as in adolescence, in which the head is depressed somewhat backward but without eversion or outward rotation sufficient to require reposition. In general the fractures of the neck near the head are unimpacted while those near the base are impacted. Under the consideration of treatment reference will be made to impaction in its practical aspects.

In respect to diagnosis in general the x-ray examination should be had when ever possible and its evidence given great weight. It is wise to include the sound extremity for comparison, and to include in the examination the whole of the suspected bone—particularly in cases associated with marked trauma as more than one fracture may exist even at the extremities of the bone involved. In this connection, it is my custom to have the parts again x-rayed after the fixed dressing has been applied and subsequently as often as indicated. They are of interest at the time and may become of transcendent importance should the case assume medico-legal aspects weeks, months, or years after.

In regard to the prognosis of hip fractures Scudder has this to say, viz: "If the form of treatment chosen for a given case is appropriate and is carefully followed out, the result of fracture of the neck of the femur is a useful hip without marked disability and in many instances without any disability whatever". Unfortunately in all the cases the appropriate form of treatment cannot always be instituted or if instituted cannot always be consistently carefully carried out. I refer particularly to those who are substandard by virtue of definite disease or general senile changes. In this connection, however, one should not be too hasty in deciding against trying appropriate treatment. I have in mind one case at eighty-six years in whom I had to abandon thorough treatment after two weeks. This man, however, secured bony union and in due time walked without a stick. There seems to be no definite age limit for bony union as shown

by a female patient of ninety-seven years who died ten weeks after the fall. At autopsy the bone showed besides good position definite signs of bony union. In this case no systematic treatment other than sand bags was instituted for the fracture per se. Of course, in this class of cases the tail must not be allowed to wag the dog. In other cases chronic rheumatism may definitely and permanently militate against a useful hip.

If union has not occurred in eight weeks we must regard the case as one of non-union. Such cases, however, are not inevitably useless especially if equipped with appropriate ambulatory apparatus. But such cases are particularly likely to suffer more or less pain daily. In young subjects prospect of cure is offered through the operation of pegging with an autogenous bone graft.

In standard cases the items singly or in multiple which may as possibilities contribute to permanent disability are shortening, some eversion, some limitation of normal motion of the knee or hip, or both, a slight limp, and a feeling of weakness and insecurity (Scudder). Of late considerable advances have been made to reduce these to the minimum while formerly they were regarded as inevitable and unavoidable concomitants of hip fracture. These will be stressed in considering treatment.

The treatment of fracture of the hip will vary according to the type of fracture and even then adapted to the age of the patient. The types are (1) complete unimpacted. This is the common variety (2) the complete and definitely impacted. This in the light of careful observation since the employment of x-ray examination has been found to be fairly rare, (3) the incomplete in which there is no displacement and slight if any deformity. This is, also, rare. Of this type I have had one case. Purposely I have not referred to intra and extra capsular as this feature does not particularly alter the principles of treatment, although as already mentioned it has its influence in prognosis as to bony union and the need for all possible care in the intra capsular form to secure accurate or cabinet maker's precision of apposition of fragments.

Underlying all forms of treatment is the condition that no leverage can be applied to the upper fragment. It therefore follows that the distal fragment must be made to meet the proximal (Speed). Having secured apposition the position must be maintained. To accomplish this there are approximately six methods including the operative treatment. Some methods are for exceptional cases or failures with some one

of the other forms. On general principles, too, there is greater urgency, other things being favorable, to secure earlier reduction and fixation in intra capsular than extra capsular fractures.

It has seemed to me more practical to stress the forms in greater detail that I have found most applicable and useful under conditions which prevail hereabouts rather than those involving the services of expert appliance mechanics or open operation.

First in point of comprehensive mechanical effective, single control, and general availability is the abduction method of reduction with plaster-of-Paris splint—commonly called the Whitman method (Scudder). It is applicable not only to the complete fracture but also to impacted cases threatening poor functional result through deformity. Under conditions of such impaction, the impaction should be disregarded and better secured by reduction. For the details of the anatomic and physiological basis of the reduction of the fracture I refer you to the literature. The plaster splint simply maintains the position obtained. The steps in the use of the method are (1) complete anesthesia, (2) proper sacral support or fracture table. In this connection there is a portable Hawley frame embodying the important features of the fracture table of the same name, (3) two assistants for manual traction to reduce shortening—extension, (4) elevation of upper end of distal fragment to level corresponding with the sound side, (5) rotation inward of the injured thigh, (6) abduction of the sound extremity to the normal limit, (7) abduction of the injured extremity to correspond with the sound one, (8) slight flexion of the knee and (9) foot slightly adducted and at right angle with the leg. Position having been secured fixation is attained by a cast extending from the nipples to the toes of injured side. The cast should be thick enough to be rigid. In order to make it lighter one or more thin steel bars or strips of wire gauze may be inserted about the hip. The buttock should be securely enclosed as the principle of fixation implies maintaining the relation between the pelvis and the injured extremity. If this is borne in mind the plaster may be so applied as not to extend above the pelvis. This adds to the comfort of the patient. If the uninjured side is also put in plaster to just above the knee a rigid cross bar can be incorporated above the knees which facilitates handling the patient. The plaster of the single spica should be cut at the pelvis on the sound side to permit full flexion of that thigh. Windows should be cut over the patella and upper abdomen, the former to permit of frequent daily

manipulations of the patella and the latter for respiration, eating, and comfort. In patients complaining of excessive constriction about the chest, the plaster above the abdominal window may have to be split but personally I have not had to do this as in a few days the cast becomes comfortably loose. In addition to the heavy shirting or union suit put on before the reduction was done, additional pads—saddler's felt—should be placed over the sacrum, the bony prominences of the pelvis and the upper part of the chest. When the cast has been trimmed in its finished state another union suit may be put on over the cast and cut edges sewed to the inner one giving softness to the edges of the cast and preventing hardened particles of plaster from getting between the skin and inner covering of the cast. The head of the bed is elevated a foot or more to favor the circulation to the parts and enables the patient to be comfortable with a flat pillow. In this cast the patient may be handled freely and get relief by being placed in the prone position for periods daily and taken to a porch or elsewhere on a cart. As soon as the plaster has dried somewhat an x-ray film should be made. So far I have not had to make a second reduction, although I have several times had to reinforce the cast. The cast is worn for ten to twelve weeks and the patient will notify one several days in advance of the expiration of the period. After removal the patient should remain in bed at least four weeks during which massage and motion—active and passive—are progressively practiced—including particularly abduction to the limit, and flexion. On account of the danger of developing coxa vara except in cases, perhaps, of children and fractures at the base of the neck, weight bearing should not be permitted under six months. As a preliminary active motion should be free and painless and co-ordination good. As a substitute for crutches during this period after the removal of the cast a caliper hip splint may be used for getting about.

As a modification of the fixation following the abduction-reduction in suitable cases a double spica enveloping the pelvis, the sound side to the knee, the affected side the full length with the thighs in abduction and flexion with a bar between the thighs and flexion of the knees may be used (Moore's Frog Plaster).

Results of the Whitman method seem to offer a good prognosis as to life and function in 75 per cent of all cases in which the method is properly applied. The method has, according to Scudder, raised the treatment of hip fractures from the position of the most neglected of all fractures to the highest.

The development of the abduction method and the inadequacy of the old extension methods—notably Buck's—has relegated most forms of extension to the treatment of cases of incomplete and impacted fractures. There is, however, one form employing traction in two directions which is applicable to the class of cases just referred to and complete fractures. I refer to the Ruth-Maxwell method. Cotton thinks it particularly indicated in extra capsular fractures to maintain position rather than reduction. He regards it as ideal but says it requires real care. In the matter of care at least, I am prepared to agree. I have obtained excellent results in several cases. Every time I use it I feel as if I were preparing daily a float for a parade. Daily adjustments are necessary and nice discrimination is required in the adjustment of the lateral traction particularly.

Probably the method *de luxe* is that using the Bradford abduction splint. The advantages are the rendering of most of the parts during the whole period of disability accessible for frequent and direct attention to the skin and massage with resultant less muscle atrophy against the time for return of function. Also, it enables patients at the end of the second week to be helped to walk and thus the general circulation is improved. The method secures fixation of the pelvis, extension, abduction, and inward rotation. The splint is based on the Thomas splint principle with a fragment of the upper ring of a Thomas splint added antero-internally for securing fixation of the pelvis. The method is likely to be successful only in the hands of those who take kindly to apparatus and have at command the services of a skilled mechanic. I have not used the method but I have the feeling that it is the treatment I should prefer for myself personally.

Artificial impaction as a method of reduction of hip fracture was contributed by Cotton and may develop in the hands of others to cover the field claimed by the originator. The central idea is to secure artificially in loose unreduced fractures an impaction to all intents and purposes the equal of the rare but desirable natural impaction. It has been used as late as ten weeks after injury. For the details of the procedure I refer to the literature. After impaction-reduction has been secured the plaster spica is applied to secure maintenance very much in the usual way of Whitman's abduction method. In the relatively limited number of cases on whom the method has been used, success has been obtained commensurate with the Whitman method. I have had no personal experience with the method

nor cases in whom it seemed applicable. Mechanically, however, it appeals to one for the loose fracture of delayed reduction.

Of operative procedures there are essentially three devised for ununited fractures. They are intended for selected cases and as the procedure of two at least is highly technical and only to be undertaken by operators of special training and experience the details will be omitted. Suffice it to say bone pegging of the neck of the femur has yielded better than 50 per cent of successes in the hands of specialists. Brackett's operation consists of substituting part of the greater trochanter for the atrophied neck while Whitman's hip joint arthrodesis substitutes the trochanter for the atrophied head. It will appear therefore that the selection of operation is determined in a large measure after careful study of the individual case.

From this brief discussion of fracture of the hip we may say that (1) with the development of x-ray examination the finer points of diagnosis have been supplied; (2) with the abduction method of reduction a large preponderance of successful reductions is ensured; (3) with the plaster spica and its variations and Bradford's traction splint maintenance of reduction is adequate; (4) with proper regard for the time required for repair before weight bearing is begun coxa vara is avoided; (5) with the earliest possible resort to massage and motion disability is shortened and avoided; (6) with the clearly indicated procedures carefully executed 75 per cent of cases at least should be successful, and finally, (7) these results are in the hands of the general surgeon for the benefit of the public.

NEWER METHODS IN THE TREATMENT OF FRACTURED FEMURS*

DONALD C. CONZETT, M.D., Dubuque

Although the newer methods of fracture treatment are presented frequently in current journals, only a small percentage of surgeons make use of them. When it is noted that the legal department of the State Medical Society showed in its report for last year that thirty-four of its relatively few cases dealt with fracture end-results, we may be certain that something is amiss. It would seem that the apparent complexity of fracture apparatus has been a barrier against its adoption and a better understanding would increase its use.

*Read before the June meeting of the Finley Hospital Staff, Dubuque, Iowa.

A decade or so ago the surgeon was content to "set" a broken leg, splint it with a handy board, and proceed home satisfied that nature would complete the process of healing. The result was, oftentimes, good, but frequently complications arose which were difficult to view with the same satisfaction evidenced over the method of treatment. Newer methods have been the outcome of these untoward results. But now, these methods are so numerous, and the application of apparatus so detailed that the average surgeon has become either lost in the immensity of the problem, or too busy to work out the possibilities. The basic principles involved are few; it is the many variations conceived to meet special instances that have put such confusion into the literature.

Simplicity of method is essential, especially for the man who is not doing a great amount of fracture work. Certain systems of treatment give excellent results but they require the genius of a mechanical wizard, and the equipment of a fracture hospital, for their use. Trained assistants and nurses are required as in other suggested measures. Obviously the busy surgeon cannot be adjusting eight to ten pulleys throughout the day. Further, certain operative reductions demand a technique, requiring a trained operating team that cannot be maintained in a smaller community where only a few such operations would present themselves in the course of a year. Consequently, only the more practical procedures will be considered.

The primary aim in fracture treatment is the reestablishment of normal function. The anatomic result, though important, is secondary. Too often in his zeal to obtain perfect bony alignment, the surgeon loses sight of the physiologic background. A stiff knee or a toe-drop results, for he has treated a fractured femur rather than a patient robbed of normal locomotion because of a fractured femur.

The femur is fractured more frequently than any other bone in the body. Length, weight bearing requirements, angulation, and lack of protection all contribute to this fact. The most common sites of fracture are the neck, sub-trochanteric, intertrochanteric, shaft, supracondylar, condylar and epiphyseal separation. These may be conveniently considered as those of the hip, the shaft, and the lower third. There are two facts that pertain to any fracture of a long bone. The first, which Speed cites as the general law of fracture treatment, states that, "The distal bone fragment, over which the surgeon has control, must be brought into a plane of

normal relationship to the proximal fragment". The second point is the complete dependence of a broken bone on its enveloping musculature. It is a not infrequent happening to have a posterior bowing with angulation following an anatomically perfect reposition with plating. The musculature, temporarily relaxed by the operative anesthetic, contracts and exerts a tremendous force on the bone. Particularly is this true of the femur where the fascia lata acts as an enveloping sheath for the long muscles, and likewise serves as an attachment for the intermuscular septa which traverse the thigh to the linea aspera of the femur. Nifong gives an excellent illustration. He says, "Imagine a canvas sheath with attachments to rings at the ends. Imagine a partition of like material attached to a stick representing the femur in the center. We break the stick, relaxing the tension on the sheath one or two inches, and the ends of the stick displace, overlap, and angulate if the sheath is bent. Now make extension on the rings of the sheath and the stick resumes its normal position, being brought back by its attachment to the canvas. In the case of the femur, it returns to normal position by reason of its attachment to the intermuscular septa and the pressure of the muscles being extended to normal position in their several compartments. With a proper understanding of the fascia lata, a good and sufficient mechanical reason for the use of extension in fractures is at hand". It seems that the illustration would be more apt if rubber sheeting were substituted for Nifong's suggestion of canvas sheathing, for it would better delineate muscular contractility, and thereby show the advantage of continuous, steady traction.

All forms of treatment may be listed under three heads, namely, massage and mobilization; traction, with its variations; and lastly, operative treatment. The first class may be quickly described as a method involving manual rubbing over the fractured area with gentle and continued rhythmic massage until the muscles are relaxed. The bones are then carefully kneaded into position. This method has few adherents and fewer competent practitioners. It somehow links itself too closely with some of the left-handed cults of the healing art. Operative treatment will be likewise slighted and mentioned only when the closed methods of reduction are not applicable.

FRACTURES OF THE NECK OF THE FEMUR (HIP)

Hip fracture is the term most commonly applied to those of the neck of the femur. As far

as treatment is concerned, the site of fracture in relation to the capsule of the joint is unimportant. The displacement of the lower fragment is usually upward, backward and outward. A knowledge of this displacement is necessary for each of the forces must be counteracted to secure proper replacement of the fragments. The old day of pulling and twisting until something "gives way" has no place in modern treatment. The classical treatment is that outlined by Whitman. The failures have been due, not to the treatment, but to improper use of it. A fracture table, or at least an improvisation which supplies a sacral rest, is necessary, and the patient must be anesthetized. Longitudinal traction is exerted on each leg, while the surgeon rotates the fractured leg inward until the patella points slightly in that direction. Both legs are then abducted without diminution of the extension. The amount of abduction is determined by the degree attained by the sound leg; the injured one is then placed at a similar angle to the pelvis. The knee is now slightly flexed and a plaster spica applied. It is important to verify the position of the pelvis with relation to the thighs before the plaster application, for pelvic tilting is a common fault. The spica is applied from the nipple line to and including the foot on the affected, and to the knee on the sound side. This cast is worn from eight to twelve weeks, at which time an adhesive, but by no means supporting union has occurred. Crutches, or a walking caliper, are then necessary for the next three to six months, varying with the individual patient. If a caliper is used it must be well fitted, so that the weight of the body rests on the perineum rather than on the callous. Too early weight bearing frequently results in coxa vara and consequent shortening.

The frequent incidence of pneumonia is one of the most common objections to the Whitman treatment. The objection is not justified, for in parallel series of cases, it has been shown that the susceptibility to pneumonia is actually lessened when the Whitman spica is used. When suspension-traction, or mobilization by sandbags is used, the patient cannot be turned in bed. In the Whitman spica he may be placed on his abdomen several hours a day. This likewise lessens the tendency toward pressure sores. In a properly constructed spica there is little danger that it will break. Nor is it necessary that the cast be heavy. In elderly people relatively little plaster is required to maintain position. A body spica should never weigh over ten pounds.

Whitman's method is called the "physiologic" treatment because it brings the fragments into

anatomical alignment. There is a decreased vascularity in the aged, and a relatively lessened tendency toward new bone growth. Consequently, it is important to secure as complete bony apposition as possible. The abduction position overcomes the adduction pull. The adductors are a powerful group and their dominance makes a most disturbing dysfunction in locomotion. Outward rotation is corrected by the inward position, and, by flexing the knee slightly before plaster is applied, a knee joint stiffness is made less likely.

Cotton's method of impaction is probably the next most feasible method, though it has few exponents. It is used primarily in loose or disengaged hip fractures where the fragments are completely separated. The patient is placed on a Hawley table and anesthetized. The surgeon then removes his shoe and places his stockinged foot in the patient's perineum, to act as counter-traction. Then, grasping the fractured leg, he exerts pull in a longitudinal plane. The leg is pulled down to the measured length of its fellow and slightly inverted. The position is maintained by an assistant, while the surgeon, covering the greater trochanter with a double thickness of felt, strikes over the trochanter with a heavy mallet until he feels something "give". The fracture has thus become impacted and is put in plaster in modified abduction.

The claim for its superiority is based on the fact that firm bony apposition is accomplished, and a fibrous union is the result as in other methods. The method however, is not one to be used routinely. A blow of this nature can cause considerable damage, especially if the pelvis is subject to chronic osteal changes. Troublesome hematomas may likewise occur. Again, an impacted fracture may become disengaged due to bony absorption. It is not a method for the inexperienced surgeon to attempt.

Hip fractures must be individualized. To insist on Whitman's method in every case is as foolish as advising abdominal exploration in every case of abdominal pain. The mortality in hip fractures is high—Scudder found it to be 16 per cent in a large series of cases wherein different types of treatment had been used. There are individuals who are certain to succumb if placed flat on their backs. These deaths are usually listed as hypostatic pneumonias, but more accurately, it is the inability of these individuals to adjust themselves to the recumbent position, consequently congestive changes of heart, lungs and kidneys ensue. These people must be placed in a sitting position, and the affected hip mobil-

ized with sandbags. The union, slow to occur, will be mainly fibrous, but they may have years of life and happiness, though probably from the confines of a wheel chair.

SHAFT FRACTURES

Fractures of the shaft are common and of several types. They classify nicely into those of the upper, middle and lower third of the shaft, and a characteristic deformity exists in each. In those of the upper third, the short proximal fragment is abducted and rotated outward, while the distal fragment is pulled up and in by the hamstrings, quadriceps and the adductors. If the fracture line is below the lesser trochanter, the deformity is increased anteriorly, for the upper fragment is drawn in that position by the iliopsoas. The direction of deformity in the middle group is in line with the fracturing force, and angulation and over-riding are usually prominent. The lower third fractures exhibit considerable posterior displacement of the short distal fragment, due to the pull of the powerful gastrocnemii.

The methods of treatment include reduction and immediate plaster fixation; skin traction with suspension; skeletal traction with suspension, and lastly, operative reduction. Buck's extension has had time honored usage but too often the surgeon has hastily applied it without regard to counterextension, the interference of bedding, or the plane of traction. The greatest effort must be exerted to produce a result which will most closely approach the normal line of weight bearing. This line extends from the anterior superior iliac spine through the middle of the patella, to the second toe.

Since shortening is always present, whether it be due to angulation, over-riding or comminution, it is mandatory that extension be applied in the first part of the treatment. It is impossible to maintain continued traction in the longitudinal plane solely by means of a plaster cast. It therefore follows that some other means must be adopted. This we have in continuous traction-suspension splints. The value of the suspension lies, not so much in its aid toward bony alignment, as in the physiologic factor of the treatment. Muscle atrophy from disuse is rapid; functional regeneration, slow. Hence, by maintaining a physiologic attitude, where muscular tone remains intact, considerable time is saved in convalescence. The nursing problem, frequently such a hardship in fracture cases, is made quite simple with the suspension treatment, and without fear of disturbing the fragments.

The Hodgen and the Thomas splint both embody the same principle. In each traction is maintained by Buck's extension, using adhesive, moleskin, or gauze and Sinclair's glue. These strips extend well above the fracture line so that muscular relaxation may be obtained throughout the thigh. The strips are then securely bandaged to prevent slipping, and further reenforced by spiral interlacing strips of adhesive. Protective pads over the malleoli prevent pressure injury.

The Hodgen splint, originated during the Civil War by an army surgeon has not had wide usage despite its simplicity of construction and ease of application. It consists of two lengths of three-eighths inch soft iron rod extending on either side of the leg from the pubes within and the greater trochanter on the outside. These are joined by a crossbar four inches below the foot, having a spread of four inches. At the upper portion a width of ten inches is bridged by a semi-circular piece of rod, thereby cradling the thigh. Buck's extension is applied, and the leg is supported in the splint by means of muslin or flannel strips of four inch width slung from the sidearms. The extension is secured to the crossbar at the foot and the splint is then ready to be suspended. Lugs, or slots, in the iron rods are located on either side just above the ankle and knee, and from these, running to a common fixed point above, cords suspend the apparatus at the desired angle. The farther distant the fixed point is from the site of fracture, the greater the pull. This point may be gradually moved as healing progresses to a point where the resultant force is all suspension and no traction. Countertraction is maintained by the patient's body, and by elevation of the foot of the bed.

The Thomas splint is familiar to most and need not be explained in detail. It employs the same principle, except suspension and traction are maintained by separate forces. The upper portion is a padded ring which fits snugly against the perineum and exerts countertraction against the tuberischii; whether the weights are suspended at the head or the foot of the bed is a matter of individual choice. Either method offers many variations.

Skeletal traction is used by very few men, yet it possesses distinct advantages. In compound fractures; in those which have considerable skin injury; and in infected wounds, skeletal traction is indicated. It does not interfere with dressings, and irrigation may be instituted while traction is in force. The common types used are the Steinman nail, and calipers. The former is a thin steel bar, sharpened at one end. This is

driven into the femur just above the condyles, into the tibial ridge, or best, into the os calcis. Direct pull is then applied from either side of this nail and the leg swung in a Hodgen or Thomas splint as previously described.

There are many variations of calipers, all employing the same principle. They grasp the bone much as do ice tongs. Though frequently effectual, they are prone to slip. Several points must be borne in mind in the use of skeletal traction. Infection is not of infrequent occurrence, though with rigid surgical asepsis, it should not occur; an osteomyelitis of the os calcis, however, is a disturbing consequence. Further, if the fracture be near a joint, the application of skeletal traction may provoke enough local trauma to establish an inflammatory reaction in the joint, with a resultant arthritis or an ankylosis.

A shaft fracture should be kept in suspension approximately fifty days. If at the end of a week, the over-riding and bowing have not been overcome, it is safe to assume that something is amiss. Muscle interposition is the most common possibility, and demands operative intervention.

OPERATIVE REDUCTION

The implantation of any foreign substance should be avoided whenever possible. It is much to be preferred if an open reduction can be accomplished and maintained, without use of foreign substance. It follows then, that the smaller the amount of foreign substance used the better. Simple steel screws work well in spiral fractures. Bone transplants, sliding grafts, and intramedullary pegs, all useful in competent hands, require skill above the average, and, because of pressure necrosis, hemorrhage, and bony absorption, frequently are ineffective. Parham's bands are at times useful in badly comminuted fractures. Lane plates, too, have had great vogue; however, they, like the bands, include considerable foreign material, which must often be removed later. In all operative reductions, a plaster cast is necessary to maintain position.

Condylar fractures, fortunately, are not common, for the results obtained are not uniformly good. The prognosis depends largely upon the degree of separation of the fragments and the amount of injury to the joint. A linear fracture without displacement through the condyle unites with ordinary suspension. In other forms, reposition by operation is required.

Epiphyseal separations in the femur are not common. The lower epiphysis unites firmly at about the twentieth year. Before that time, through trauma of a wrenching nature, it may be separated from the shaft. The displacement

is usually great and the adjacent tissue injury extensive. In a separation of the upper epiphysis, the underlying cause is usually a constitutional disorder. A Whitman abduction cast is the accepted treatment, while other means are used to combat the causative factor.

SUMMARY

1. Fractures of the femur are being treated by obsolete methods by many surgeons because the newer techniques have not been standardized.
2. The mechanical problems are based on the law that the distal fragment alone can be controlled, and it, therefore must be brought into alignment with the proximal fragment.
3. The Whitman abduction spica cannot be improved upon in hip fractures, according to our present knowledge, and with the proper application of the spica, the contraindications are minimal.
4. Since traction is fundamental in reducing shaft fractures, the principle of suspension-traction whether by skin or skeletal pull, seems to give the best results with the greatest comfort to the patient.
5. Open operation is used only when non-operative reduction has failed or else become contraindicated by muscle interposition or by fracture in the most distal portion of the femur.

IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines
Commissioner, State Department of Health

PREVALENCE OF COMMUNICABLE DISEASE

During the month preceding June 15, the communicable diseases which have been most prevalent in Iowa were smallpox and scarlet fever. There were also a few measles centers. As anticipated, however, there has been comparatively little measles in Iowa this year—nor do we expect any considerable number during the remainder of the year.

Measles occurred chiefly in Woodbury, Blackhawk and Delaware counties.

Scarlet fever occurred chiefly in Pottawattamie, Page, Polk, Blackhawk, Linn, Johnson, Scott, and Des Moines counties.

Smallpox prevailed chiefly in Pottawattamie, Page, Cass, Boone, Polk, Marion and Des Moines counties.

POLIOMYELITIS (Infantile Paralysis)

From the situation which prevailed in a number of states last year, it is rather anticipated

that there will be fully as many, if not more, cases of poliomyelitis this year than there were last. Last year 109 cases and 29 deaths were reported in Iowa.

Poliomyelitis is largely a seasonal disease. The seasonal increase usually begins in June and reaches its height in August, calculating the time from the appearance of first symptoms.

No new cases have been reported to the State Department of Health during the past three months. It is, of course, possible that some cases have been missed—especially if they were mild ones. As a matter of fact, it appears from immunological evidence, that probably a majority of cases of poliomyelitis are unrecognized and indeed, unrecognizable except by immunological methods not yet practicable.

In view of the existence of many mild cases, physicians should make every effort to recognize them in as early a stage as possible. In many cases the disease can be recognized before paralysis sets in.

It is well to keep in mind the early symptoms—malaise, fever, gastrointestinal disturbance, especially vomiting, and headache. After a day or two of such general symptoms, there is often a slight remission of symptoms lasting one to several days. Then follows evidence of meningeal irritation and beginning nervous system involvement as indicated by irritability (often followed by apathy); a facial expression of anxiety and apprehension; pain on being handled; slight rigidity of spine and pain on bending head on chest or on bending spine. An examination of the spinal fluid taken during this stage is of great value. Many cases do not go beyond the first stage of general symptoms, others do not proceed beyond the second stage. Some however will develop symptoms of paralysis in the course of two to seven days after beginning of symptoms.

Early recognition of the disease will mean much for the patient and such together with prompt reporting of cases to the local and state departments of health, will enable these officials to promptly apply the proper procedures to aid in preventing the spread of the disease.

REPORTING OF CASES OF COMMUNICABLE AND OTHER REPORTABLE DISEASES

All cases of certain communicable and other reportable diseases (see page 4, Rules and Regulations of the Iowa State Department of Health) must be reported to the local board of health and by such in turn, to the State Department of Health.

The law regarding such is as follows:

Section 2249, Code 1927. **"Report of Quarantinable and Placard Diseases.** The physician attending any person with a quarantinable disease or placard disease shall immediately report the same orally to the local board or to one of its officers and at once follow said report with a written report. Such reports shall be made in accordance with the rules of the state department and the local board. In case there is no attending physician, the parents, guardian, school teacher, or the householder of the premises wherein such disease exists, shall report the same."

Section 2250: **"Report to Department.** All quarantinable and placard diseases shall be reported by the local board to the state department as prescribed by the rules of the department."

Section 2281: **Venereal Diseases.** **"Physicians to report to local board.** Immediately after the first examination or treatment of any person infected with any venereal disease, the physician giving the same shall mail to the local board having jurisdiction over the place in which the examination or treatment was given a report stating the case number, age, sex, color, marital condition, and occupation of said person, and the nature, probable origin, and previous duration of such disease."

The State Department of Health has ruled that the local health officer is the representative of the local board of health who should receive all reports of communicable and other notifiable diseases and who should in turn report same to the State Department of Health.

Reports to the local health officer of all cases or suspected cases of reportable diseases, should be made within six hours of becoming aware of their existence. The local health officer should report every such case to the State Department of Health within twenty-four hours from the time the report was received from the physician, nurse or other person. Any new cases occurring in a family where a case already existed, must be reported as they occur.

For the reporting of cases, the State Department of Health furnishes two forms as follows: (1) Post card forms for the reporting of all notifiable diseases except venereal diseases. These are supplied to every local health officer without charge. They are used only by the local health officer in reporting to the State Department of Health. Reports by physicians and others to the local health officer may be made on any form supplied by the local board of health or without such form in case none is supplied. (2) Forms for reporting venereal diseases are supplied without charge by the State Department of Health directly to the physicians and also the local

health officers. These forms are in duplicate so that by use of carbon paper, a copy is made. The attending physician keeps the carbon copy and sends the original to the local health officer who, after having made a record of the case, forwards the original copy to the State Department of Health. (Our present V.D. forms state that the original should be sent to the clerk. The new forms will read "Send to the Local Health Officer").

Quarantine and placard signs may be obtained by the local health officer or quarantine officer from the county auditor. Such are furnished at county expense.

Every local board of health should appoint a local health officer and report the name and address of such health officer promptly to the State Department of Health.

"No health department can effectively control diseases without the knowledge of when, where and how diseases are occurring."

DIPHTHERIA PREVENTION WORK SHOULD BE CARRIED ON BY THE FAMILY PHYSICIAN

A large amount of educational work relative to the prevention of diphtheria by means of toxin-antitoxin has been carried on by the State Department of Health during the past two years. In many places the medical profession with other groups cooperating, has put on campaigns aiming at immunizing practically the entire school population. These have been very successful. They have served to hasten the time when diphtheria will be eradicated from the state. They have also served as effective educational procedures.

It is now time to emphasize the importance of immunizing all children and of doing so at a very early age. The best time is when the child has attained the age of six months or as soon as convenient thereafter. Very obviously such should be done by the family physician. There should be little need for the holding of clinics in connection with such except as a part of other clinics for indigent patients and such should be in charge of physicians. I would strongly urge that every physician consider it his duty to take the initiative in informing parents of children whom they have delivered that the best time to immunize a child is when the child is six months of age. We believe that the status of "family physician" will be improved if they will keep parents informed as to what should be done to protect their children. With the idea of not only preventing but entirely eradicating diphtheria from the state, the State Department of Health is now sending out a large number of slips with the following information:

"NO DIPHTHERIA IN IOWA BY 1930"

DO YOU KNOW THAT

Diphtheria is unnecessary and that children can be protected from diphtheria for life?

HOW—By toxin-antitoxin.

WHEN—A good time is now. The best time is when child is six months old.

WHY—To remove, for probably all time, the possibility of your child taking diphtheria.

BY WHOM—By your own physician.

IOWA STATE DEPARTMENT OF HEALTH,
Des Moines, Iowa.

These are being enclosed in many of the letters leaving the department. Many physicians will no doubt like to have slips of this kind to enclose with letters leaving their office. The State Department of Health will gladly furnish these slips to any physician upon request.

PEDICULOSIS — CAPITIS, CORPUS AND PUBIS

ROBERT EMMET JAMESON, M.D., Davenport

Pediculosis or lousiness, a term applied to the invasion of the skin or hairs by pediculi or lice. There are three varieties of pediculi, namely: (1) Pediculi capitis, attacking the scalp hairs. (2) Pediculosis corpus, found on the general surface of the body and clothing. (3) Pediculosis pubis, found chiefly on the pubic hairs, may be found on the eyelashes, eyebrows, and axillary hairs. Rarely on the mustache or beard.

All of these parasites are very productive. The pubic variety hatches out fifteen to twenty eggs, the other varieties hatch fifty or more, they multiply rapidly, hatching out within a week, reaching full sexual powers within two weeks or more.

Each year beginning with the colder weather, especially the late fall, winter and early spring months, we see more persons affected than during the summer months or warmer months, due no doubt to the fact that during colder weather, heavier, warmer and more clothing is worn, more hours spent indoors, people mingle and are in closer contact, this being especially true in larger families, crowded living quarters, and in institutions, schools, orphanages and other public institutions where children are, serve as a productive soil for the spread of pediculosis. When a diagnosis of pediculosis has been made, and the variety determined, as each variety requires different methods of treatment, prompt and correct treatment for each variety of pediculosis prevents the spread of these ubiquitous affections, and insures rapid cures.

Pediculosis is found in all climates, all classes of people are liable to infections, all ages and all races of people are known to be affected by all three varieties of pediculosis.

PEDICULOSIS CAPITIS

Head lice, attacks the hairs of the head, nits become attached to the hairs of the scalp. This type of pediculosis is more common in children, more often found in girls than boys. It being readily communicated from one child to another, in schools and institutions both public and private. Once this type invades children in institutions it spreads rapidly, unless recognized and prompt measures for its control adopted. Correct treatment insures rapid cures.

TREATMENT OF PEDICULOSIS CAPITIS

All persons, whether in private families or institutions, should be examined to determine those who are affected, having established the persons affected, treatment as follows should be administered.

1. Liquid petrolatum applied to the scalp and hairs of the scalp, until thoroughly saturated (do not permit the liquid petrolatum to run down the neck, it will blister and burn the skin).

2. Bandage head with towel or similar cloth for twelve hours.

3. Shampoo the scalp with soap and warm water, make a heavy soap lather, leave the lather on the scalp and hair of scalp for at least five minutes, or longer, then rinse the scalp with clear water.

Some prefer crude petroleum diluted with olive oil or liquid petrolatum. However, it is dangerous, and may become ignited if brought in contact with an open flame. Personally I prefer the liquid petrolatum, which will destroy the lice nits, or ova, as well as the crude petroleum.

PEDICULOSIS CORPUS

Body lice, usually found in the clothing, seams of under garments and body surface. This form of pediculosis more frequently seen in adults.

TREATMENT OF PEDICULOSIS CORPUS

1. All wearing apparel should be examined for the pediculi, all clothing and bedding used by those affected with pediculi corpus, should be soaked or boiled, later gone over carefully with a hot iron to destroy all pediculi, all members of the family or those with whom the person affected comes in contact should be examined.

2. The entire body should be scrubbed with soap and water.

3. The soap later left on for at least five to ten minutes, then rinse off with clear water.

4. Ten per cent sulphur ointment rubbed thoroughly over the body (some prefer to leave the lather dry on, then apply the sulphur ointment over it).

5. Those who do not have modern conveniences, as baths, clean clothing, etc., may wear next to their bodies, a roll of sulphur the size of a pigeon's egg.

6. Dusting sulphur on the under garments also is advocated when modern methods of treatment cannot be employed.

CAUTION

If the skin has been irritated following the treatment for the cure of pediculosis, soothing lotions may be applied such as calamine lotion, one or two per cent phenol, depending upon the age of the patient and the patient's tolerance, this of course should be under the supervision of a physician.

PEDICULOSIS PUBIS

Also known as crab louse. Caused by the crab louse, which are found in the pubic hairs, may also be found in the eye lashes, eyebrows, and axillary hairs.

TREATMENT OF THE PEDICULOSIS PUBIS

Boiling the clothing one hour will destroy the crab louse. A prescription which I have used successfully is as follows:

Rx Corrosive sublimate—1 part.

Acetic acid, 5%—248 parts.

M. ft. sol.

Sig.—Wash affected parts thoroughly with water and heavy soap lather, dry, apply the above prescription by dabbing on all hairs in affected regions, let it dry on, and apply at least twice daily, in a few days all nits and lice will be destroyed.

Caution—Sometimes a dermatitis has been induced by scratching and after the application of the above prescription, one may find it necessary to apply soothing and healing potions, the treatment should in all cases be under the direct supervision of a physician.

SUMMARY

For all the varieties of pediculosis it is necessary to change all clothing that has been worn by the person affected, also all bedding, and the clothing and bedding to be fumigated, boiled or sent to the cleaners, all skin irritations following or induced by scratching, must be treated following the cure of the pediculosis. All forms of pediculosis are readily diagnosed, and with correct treatment will prevent the spread of either of the varieties of pediculosis and cure obtained in the shortest possible time.

The Journal of the Iowa State Medical Society

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Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVIII July, 1928 No. 7

THE SEVENTY-SEVENTH ANNUAL SESSION

The Seventy-Seventh Annual Session of the Iowa State Medical Society was held in Cedar Rapids, May 9, 10 and 11, 1928, with an attendance of 535 registrants, after an interval of twenty-one years. Cedar Rapids is one of the favorable locations in Iowa for a meeting of the State Society. Its favorable geographic situation, its railway connections, numerous trains, and now its good roads for automobile travel.

We cannot measure the real interests of a meeting by the number in attendance and our memory is not good enough to bring out a comparative attendance from year to year.

The papers read before the general session were particularly creditable and well presented. The program was full but through the skillful administration of the president, Dr. Kenefick; the papers and discussions were always on time. The acoustic properties of the assembly room were not perfect and listeners beyond the middle of the room had some difficulty in hearing distinctly certain words which determined the meaning of certain sentences, but this fault was not serious and was in part due to the speaker not accurately measuring the capacity of the room.

The exhibits were well arranged for the convenience of the members, who could not well escape them even if they desired.

In the House of Delegates two subjects received particular attention and were rather fully

discussed, although nothing was definitely settled. The question of malpractice defense, which was taken over by the board of trustees under an amendment to the by-laws two years ago, the effect of which was to place the question of insurance defense in the hands of private companies. A wise determination of the trustees was to leave the choice of insurance in the hands of the individual doctors.

We recall our own relations to the same subject at the 1907 session, also held in Cedar Rapids. It should be remembered that at that time, and for many years after, it was held illegal for a physician to carry indemnity insurance, or for a commercial insurance company to solicit such insurance within the borders of the state. It was held by the law department of the state that it was contrary to public policy for a physician to insure against the consequences of his own wrongful act. This did not apply to the Society defense through a committee; the objectionable act was the indemnity feature, which even the Society could not perform. There were, however, an unknown number of physicians who clandestinely purchased indemnity, but the contract could not be enforced because of its illegal character.

Some years later certain commercial companies, through the legislature, secured an amendment to the insurance laws which permitted them to engage in malpractice indemnity insurance. Since then indemnity insurance has been legal.

In view of the fact that some cases would be lost in spite of the most skillful defense, and that some money adjustments would be necessary on account of the nature of the case, the committee in its annual reports advised members to secure indemnity insurance, so that by the year 1926 a considerable percentage of the members carried insurance against financial loss.

In view of the fact that certain sums of money—at least theoretically—have been set aside for medical defense, the men who pay this assessment and also pay for indemnity insurance, are taxed doubly, it would be logically correct that when a substantial majority of the members carry indemnity insurance, the State Society should withdraw this assessment, which could be used for other purposes, of which there are enough.

The financial condition has not been fully understood. During the twenty years prior to the change, the State Society paid out in attorneys' fees for the defense of its members, \$60,151.26. On the basis of a membership of 2,000, it would cost each member \$1.50, and on a basis of 2,000

members and \$3 apportionment, the committee should have had \$120,000.

Some years the money paid attorneys was much more than in other years, depending on the accumulation of cases and their assignment. For instance, in the years 1924-1925 and 1925-1926 the amount of attorneys' fees reached \$11,493.69, or an assessment of \$2.87½.

Stress has been placed on a \$6,000 shortage. It will be recalled that about this same amount or nearly \$6,000 was added to the expenses of the Secretary's office without providing for the money, and as the Medico-Legal Committee was the most vulnerable, it was charged to this committee. Once before in a moment of enthusiasm the House of Delegates appropriated \$15,000 without providing for the money.

For the greater part of twenty years the dues of the State Society were \$5 a year. The officers by economy had saved from \$1,000 to \$2,000 a year by turning back a portion of allowances, advertising, etc., until we had a nice sum of near \$30,000, through the watchfulness of Dr. Throckmorton.

In presenting these facts the retiring Defense Committee is not in disapproval of the methods now being considered for defense of members threatened by claims for unskillful and negligent treatment, we believe it is a move in the right direction and will simplify matters, and each may pay for his own defense on the basis of the risk assumed.

WORK OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION

The most important subject before the House of Delegates related to the work of the Committee on Public Policy and Legislation. This committee has always been an important one. A history of this committee and its accomplishments in the last twenty-five years would be interesting. Its work has often been discouraging because of the nature of its activities and the lack of co-operation on the part of the members of the Society. It is not like most committees, carrying on within the Society itself, but has much to do with influences and agents outside, that the committee has but little control over. Perhaps an element of weakness is the frequent change in the personnel of its membership. This should be the best trained and widely informed committee of the Society and its members should serve long enough to acquaint themselves with the work of the past committees, their methods and the suc-

cess of their activities, the elements of success and the elements of failure.

As the committee has to deal with unknown and shifting public sentiment, a philosophy must be developed which takes into account these elements. They have to deal with subjects upon which almost every member of the Society has opinions, often conflicting. The committee should be endowed with autocratic power. It should be given them the authority to determine what policy to adopt, and the membership of the Society should stand ready to carry out such parts as may be assigned to them. A small committee of five, under the direction of the Board of Trustees and District Councilors would be much better fitted to determine what course to pursue than a short term committee which has few facts upon which to form an opinion.

The committee should have authority to employ such agencies as in their judgment seems necessary. This would be perfectly safe in view of the fact that under the by-laws, in every case there must come the approval of the Board of Trustees. The joint approval of the Councilors is important, in view of the fact that the Councilors are familiar with conditions existing in all parts of the state and would give additional confidence, and obviate the objection to a small governing body.

There were several subjects that come up for discussion to be primarily dealt with by the Committee on Public Policy and Legislation which we cannot consistently discuss until released by direction of the committee.

There is another matter worthy of consideration at this time and that is the co-operating activity of an executive officer sometimes called an executive secretary. No society has a better secretary than the Iowa State Medical Society, but no one of his professional ability could assume the full duties of the office for any salary the Society would be willing to pay. What we need is a young business man of integrity, to operate under the direction of the Secretary and the Board of Trustees.

The State Medical Society operates as a great medical corporation made up of loosely organized medical units, with independent views difficult of agreement. If the medical profession is a calling worth following, then it should be of first importance and interest to its members to secure a status commensurate with its value. The public is willing to acknowledge its dependence on medical science, but in a subordinate position. In consequence of the highly technical character of the

practice of medicine, we are far removed from the general conception of an independent calling and without intention have been placed in a class by ourselves, and because of this there is need of a point of contact with the business world, which appears to be at this time through a business secretary, under the direction of the secretary of the State Society.

MANAGING DIRECTOR FOR THE IOWA STATE MEDICAL SOCIETY

Pursuant to the recommendation of the House of Delegates of the Iowa State Medical Society, the Board of Trustees has established the office of Managing Director of the Iowa State Medical Society, and has appointed Mr. Vernon D. Blank to this position.

Mr. Blank is to be essentially the business manager of the Society, and is to devote his full time to the work. The Council and the regular committees of the Society will surrender none of their powers or duties to the Managing Director; he is to work through the various committees, and under the direction of the Board of Trustees. He will take care of all of the administrative details of the work of the Society, and will also serve as business manager of the Journal. He is to coordinate the work of the County Medical Societies, and of the various health organizations with that of the Iowa State Medical Society and the American Medical Association. During legislative sessions, he is to work with the Committee on Legislation, and is to represent the interests of organized medicine.

It is the desire of the Board of Trustees that the Managing Director shall be the personal representative of each physician who is a member of the Iowa State Medical Society. The Trustees hope that the physicians of the state will call upon Mr. Blank at 902 Bankers' Trust building, Des Moines, for any desired information that has to do with the medical profession; that the county societies will take up their problems with him, will ask him for any needed assistance; that the individual physicians and medical organizations will give him their consistent support. The measure of his value to our Society will depend upon our cooperation.

OLIVER J. FAY,
JOHN HERRICK,
VERNON TREYNOR,
Board of Trustees.

IOWA UNIVERSITY ALUMNI

The Iowa University Alumni Association met at Cedar Rapids during the recent session of the Iowa State Medical Society. The meeting was timely and fortunate in view of the year of misunderstanding which threatened to seriously impair the usefulness of a great medical school and lead to ill feeling on the part of the profession of the state. Only those who are familiar with the growth of the school can fully realize the difficulties experienced in bringing the medical school of the state up to its present condition of efficiency. The location of the school in a small city presents an unusual difficulty in some respects, but not unsurmountable as shown by the results up to this time.

The friends of the school not influenced by alma mater relations felt that it was only necessary that the graduates of the school get together for the purpose of discussing the problems at a time sufficiently remote from the heat of discord to bring out in a friendly manner the sources of irritation and misunderstanding. It is scarcely possible that any large number of interested persons can see all the disturbing elements in the same light, but it is fair to assume that the interests of a great cause may lead to such modifications of opinion as to serve its vital interests.

Dean Houghton brings to the school a broad culture and a wide experience, with a spirit of tolerance for the inevitable differences of opinion, promises to bring the medical school into a public relation that will make the recent outbreak helpful to the institution. Dr. Houghton is apparently able to see and measure the causes of discord and the spirit of the alumni. In some of Dr. Houghton's remarks these lines of thought are outlined. "The clinical work is bound up closely with the entire state. The University Hospital is, of course, a dual concern—it is an instrument for teaching, and it is a great institution for service to the public of the state." He further observes, "The white light of publicity shines on us at all times. And the carelessness of one assistant or one workman in our hospital plant may undo the work of fifty men. We are building up a morale of kindness".

The following Alumni Association officers were elected: Dr. Fred Moore, president, Des Moines; Dr. D. F. Fitzpatrick, vice-president, Iowa City; Dr. Vernon L. Treynor, vice-president, Council Bluffs; Dr. George Allbright, secretary, Iowa City.

DR. E. C. JUNGER

We learn that Dr. E. C. Junger of Soldier, Iowa, will be a candidate for the legislature. We are very glad to know that Dr. Junger is willing to give a part of his time to a public service. Very few are as well fitted by education and experience as the medical practitioner, to know what the public really needs. Everyone knows that the successful physician comes in contact with the public in many ways and is not readily influenced by conflicting interests.

I have known Dr. Junger a good many years—about as long as he has practiced in Monona county. One of the striking things about Dr. Junger is his fearless courage and independence. He is always present at the meetings of the Iowa State Medical Society and takes a prominent part in its work. In a discussion I have noticed that however big the town his opponent came from or however big his name, Dr. Junger seemed to feel that no town was bigger than Soldier.

We feel that it would be a gain to the state to have a man in the legislature of Dr. Junger's fitness to advise, council and assist in making laws.

THE POST-GRADUATE COURSE IN DISEASES OF THE HEART AND LUNGS

The first post-graduate course for practicing Iowa physicians in diseases of the heart and lungs was held at Iowa City and Oakdale, June 5 to 8.

There was a full attendance of the maximum quota of twenty-five accepted and some seventy-five applications had to be rejected. The unusual interest in such a course, say the sponsors of the movement, points to the advisability of repeating the plan next summer. Its success may also be the beginning of a series of post-graduate courses in various subjects.

The course was under the auspices of the department of medicine of the University of Iowa and the State Sanatorium, with the extension division, the Iowa Tuberculosis Association and the Iowa Heart Association cooperating. The schedule was a full one with ward classes and clinics every morning and clinics and lectures in the afternoon and formal addresses every evening. Among the eminent physicians on the faculty were: Charles O. Giese, M.D., Colorado Springs, Colorado School of Tuberculosis, Medical Director Printers' Home; Walter Hamburger, M.D., Chicago, Associate Professor of Medicine, Rush Medical College; Alfred Henry, M.D., Indianapolis, Assistant Professor of Clinical Medicine, Indiana University, Vice-president National Tuberculosis Association; Hugh McCulloch, M.D., St. Louis, As-

sociate Professor of Pediatrics, Washington University; George T. Palmer, M.D., Springfield, Illinois, Medical Director Palmer Tuberculosis Sanatoria; Robert B. Preble, M.D., Chicago, Professor of Medicine, Northwestern University; Stuart Pritchard, M.D., Battle Creek, Michigan, Head of Department of Internal Medicine and Diseases of the Chest, Battle Creek Sanitarium; Frederick A. Willius, M.D., Rochester, Minnesota, Associate Professor of Medicine, Mayo Foundation, University of Minnesota; Head of Section on Cardiology, Mayo Clinic.

The committee in charge of the general arrangements was: Dr. John H. Peck, Des Moines, President Iowa Tuberculosis Association, Chairman; Dr. Merrill M. Myers, Des Moines, President Iowa Heart Association; Mr. T. J. Edmonds, Des Moines, Secretary Iowa Tuberculosis Association; Dr. H. V. Scarborough, Oakdale, Superintendent State Sanatorium for Tuberculosis; Dr. Fred M. Smith, Iowa City, Head of the Department of Theory and Practice of Medicine, University of Iowa; Mr. Edward H. Lauer, Iowa City, Director of the Extension Division, University of Iowa, Secretary.

PROPHYLACTIC POLLEN EXTRACTS

The specific antigenic principle in plant pollens is best preserved by glycerin, or by a medium containing glycerin in appreciable quantity. For this reason pollen extracts for both diagnostic and prophylactic use are put up by some manufacturers in glycerinated form—the diagnostic extracts as a paste in small collapsible tubes, and the prophylactic extracts in liquid form, the diluent being glycerin and boric acid in one case, and 50 per cent glycerin in the other.

The diagnostic extracts are put up singly and in groups, enough in each tube for fifty tests.

The prophylactic extracts are available in dilute form, ready for use; there is no necessity for the physician to make up his dilutions as required. By withdrawing 1/10 cc. from the vial containing 20 pollen units in each cubic centimeter, he has a dose of 2 units for beginning the prophylactic course. It is an easy matter then to increase the dose, passing in due time from the 20-unit concentration to the 200-unit and thence to the 2000-unit strength.

Some physicians advise a continuance of the treatment beyond the usual 15-dose schedule, claiming better and more lasting results; and it is also claimed that, in case of complete protection following, it may not be necessary to repeat the treatment the following season; or, if there is any question on this score, a skin test may show that further prophylactic treatment is not required. The immunity continues for varying periods, according to the antigenic response of the patient.

Parke, Davis & Co. have a new booklet on Pollen Extracts in Hay Fever.

**Minutes of the Iowa State Medical Society
Seventy-seventh Annual Session
May 9, 10, 11, 1928
Cedar Rapids**

Wednesday, May 9, Morning

The members of the Iowa State Medical Society convened in annual session at Hotel Roosevelt, Cedar Rapids, May 9, 1928.

The Society was called to order at 9:00 o'clock by the President, Dr. Michael J. Kenefick, Algona. The meeting was opened with invocation by Rev. William A. Lee, Cedar Rapids, Pastor, First Methodist Episcopal Church.

In the absence of Mayor Rall, the Address of Welcome for the city was given by ex-Mayor Lewis Rohlf, Senior Commissioner of Cedar Rapids, as follows:

"Mr. President, Ladies and Gentlemen: On account of the unavoidable absence of our Mayor, it is my privilege and pleasure to extend to you a few words of welcome to Cedar Rapids and to assure you that we are honored in having you with us. I was told that, as you are doctors, I must tell you nothing but the truth, and with this limitation put upon me I must warn you that my remarks will be brief. The fact is that it is hardly necessary for a city official to bid you welcome to our city. The local members of your profession, our Chamber of Commerce, and the people of this community, were anxious and glad to make you feel at home long before their official representatives had opportunity to meet you. The people of Cedar Rapids may differ in nationality, in religion, and in politics, they may have different theories regarding science and philosophy, but there is one common basis where we are all one: our determination to help make Cedar Rapids a model city, an ideal city, not the largest necessarily, but rather the best balanced, a city where all the best things of life are open to all and where men and women have a chance to live while making a living. With us cleanliness, culture, morality, security and opportunities for recreation, are just as important as commercial and industrial activity and supremacy. In organizations like yours there exists one of the strongest bonds of service and duty known to mankind. You are held together by the love and the science of your profession and by a kindred aim making for esteem and fellowship. These are some of the best incentives to harmonious action known.

"I bid you welcome to Cedar Rapids. May this convention be fruitful and profitable. In the name of the people of Cedar Rapids I again bid you welcome."

Dr. Harry Earl Pfeiffer, Cedar Rapids, President of the Linn County Medical Society, on behalf of the local profession extended to the visiting members the following words of welcome:

"Mr. President and Members: As a representative of the Linn County Medical Society I extend a cordial welcome to the members of the profession and

also to the visiting ladies, who always grace these conventions by their presence. It is twenty-one years since we have had opportunity to be host to the State Society, and I will take this opportunity to express our thanks to the president and secretary for their indulgence to the local committee, for we have bothered them not a little by reason of inexperience over this long lapse of years. We wish to make this a pleasurable as well as profitable occasion while you are here and want you to enjoy yourselves so much that it will be your desire to come again."

Dr. Bert L. Eiker, Leon, representing the visiting members, responded as follows:

"Mr. President, Ladies and Gentlemen: The members of the Iowa State Medical Society are glad to be in Cedar Rapids, we are glad to be here for several reasons. The principal reason that makes us glad is, that we feel we are welcome. There have been times, and there have been places in this great commonwealth of Iowa, when organized medicine, represented as it is by the Iowa State Medical Society, was not welcome. When you feel that you are not wanted, there very naturally comes over you a feeling of embarrassment. It is no new experience for members of an organization to feel that they are where they are not welcome. The general public, as a rule, is skeptical of organizations. Organization means concentration of effort; concentration of effort means power, and power means dictation. What we mean by this is that any organization fulfilling the meaning just enumerated expects to have an influence in shaping public opinion, in saying what shall be done, and what shall not be done. Many of these organizations are brought about, so the people think, for their own personal benefit alone. It is no wonder then that the people of Iowa and the people of the United States in general, have become skeptical of organizations, they scrutinize them closely, they watch them carefully, and well they may.

"We claim that organized medicine has a right to exist and is worthy of the confidence of the general public, because; organized medicine has raised the standard of medical education, it has made the young doctor better than the old one that preceded him. Organized medicine has given to the young doctor an opportunity to qualify himself far beyond that ever dreamed of in days gone by. Organized medicine has raised the standards of hospitals, it has laid down certain requirements that they must fulfill; all of which assures the patient the best possible treatment available at this time. This high standard of requirements is right and proper because a hospital is the place where the majority of people make their last fight for life, and they are entitled to the best service that medical science can give. Organized medicine has eliminated from its portals the quack and the pretender; in other words, the medical profession has cleaned its own dooryard, and endeavored to prove itself worthy of the confidence and respect of the masses of the people.

"To emphasize the benefit that the masses of the people have derived from organized medicine, I de-

sire briefly to call your attention to diphtheria antitoxin. This alone has saved untold thousands of lives; and toxin-antitoxin bids fair to remove diphtheria from civilization. Insulin, which has made the life of the diabetic possible—discovery of the cause of yellow fever, which made the building of the Panama Canal a possibility, came not from the quack and the pretender, neither did it come from any half-baked organization that has direct communication with worlds unknown; they all came from organized medicine, in fact all the progress that has been made in sanitation, and the extermination of disease, has come from organized medicine.

"Therefore, organized medicine feels that it has a right to exist, and when we come to a place like Cedar Rapids, having a reputation as it has for learning and culture, and when we are greeted by a representative of its chief executive, who extends to us a welcome like the one you have just listened to, the people of this city little realize what an impetus it is to the work of the medical profession. It makes us feel that after all our work has been worth while. I wish that some of the pioneer men of organized medicine, a few of whom I am old enough to have known personally, might have heard the words of commendation to which we have just listened. They worked at a time and in an age when it seemed that not much could be accomplished, I personally know that they were many times discouraged, yet the work they did and did so well, laid the foundation for what the people of Iowa are permitted to enjoy today.

"On behalf of the Iowa State Medical Society, I wish to express to the people of Cedar Rapids, through their representatives that are present here this morning, our sincere gratefulness for the hearty welcome that has been given us.

"The word that cheers us on the most,
The word that's loved from coast to coast,
From frigid north to balmy south,
No kindlier word falls from the mouth,
Than 'Welcome'."

In presenting to President Kenefick the emblem of presiding officer, Dr. William A. Rohlf, Waverly, said:

"It is indeed a privilege and an honor to be requested to present to Dr. Kenefick the symbol of his office. It is more than a pleasure, because we have known Dr. Kenefick for forty years, ever since our freshman days in Iowa City. During all these years Dr. Kenefick has stood for the best in medicine and surgery. During these forty years we have seen him as an attendant at the meetings of the Iowa State Medical Society, and we have always heard his views in behalf of the best that pertains to the profession. Dr. Kenefick was a pioneer in that he established in practically a rural community a real hospital, and this little hospital with him as manager and as its inspiration has been a center for the betterment of medicine and surgery in the community. And as I hand the Doctor this gavel, the emblem of his

authority, I know that it will be yielded in fairness, in justice, and that everybody will get a square deal.

"Mr. President, as I present to you the emblem of your authority, let me say that with it goes our respect for you as a splendid physician and surgeon, our high regard for you as a man and as a citizen, and, lastly, with it goes our love for you as a friend."

President Kenefick: "Dr. Rohlf, members of the Society: Last year our good old friend from Burlington said to me that he expected to be here and present me with a shillalah. I have seen the time at some meetings (I will not say the Iowa State) when it would have been more appropriate than the gavel as an emblem of authority. Dr. Magee knows that my ancestors wielded the shillalah, which is the reason he suggested that I use it instead of the gavel.

"I thank Dr. Rohlf and members of the Society, and assure you that this little symbol will always stand in my hands for order and, as Dr. Rohlf suggested, a square deal. It is my hope that with its aid the proceedings will go along in an orderly way and that every member of the Society will receive his due."

Dr. Edward L. Rohlf, Waterloo, read a paper on "Health Regime in Our Public Schools". Discussed by Dr. Fred Moore, Des Moines, and by Dr. Rohlf in closing.

Paper by Dr. George M. Crabb, Mason City, on "Uterine Fibroids; Their Symptoms and Treatment", in the absence of the author was read by Dr. T. E. Davidson, Mason City. Discussed by Drs. Donald Macrae, Jr., Council Bluffs; William Jepson, Sioux City; William A. Rohlf, Waverly; O. F. Parish, Grinnell, and T. E. Davidson.

Dr. James B. Knipe, Armstrong, read a paper on "Prevention and Early Recognition of Pulmonary Tuberculosis in Young Adults". Discussed by Drs. J. Carl Painter, Dubuque; Frank M. Fuller, Keokuk, and J. F. Ritter, Maquoketa, Dr. Knipe closing the discussion.

Wednesday, May 9, Afternoon

The meeting was called to order at 1:45 o'clock by Vice-President O. F. Parish. President Kenefick presented his address, entitled, "The Iowa State Medical Society".

Dr. Paul S. Rhoads, of the Scarlet Fever Committee, Chicago, read a paper on "Control of Scarlet Fever Epidemics with Special Reference to Immunization", which was discussed by Drs. Herbert R. Sugg, Clinton; Henry Albert, Commissioner, State Department of Health, and Fred Moore, Des Moines; C. Ericksen-Hill, Council Bluffs; C. E. Ruth, Des Moines, and Frederick W. Mulsow, Cedar Rapids, the essayist closing the discussion.

It was moved by Dr. Henry Albert that a vote of thanks be extended to Dr. Rhoads and the Scarlet Fever Committee for this contribution. The motion was seconded, and unanimously carried.

The President retired to attend the meeting of the House of Delegates, Dr. William A. Rohlf presiding during his absence.

Dr. Albert V. Hardy, Iowa City, read a paper entitled, "Malta Fever; Clinical Aspects of Cases which have Occurred in Iowa". Discussed by Drs. Henry R. Pascoe, Carroll; Walter L. Bierring, Des Moines, and Chas. W. Ellyson, Waterloo, Dr. Hardy closing the discussion.

Dr. Christian B. Luginbuhl, Des Moines, presented a paper on "The Neglected Toxic Goiter", discussion being opened by Dr. Aldis A. Johnson, Council Bluffs, followed by Drs. Walter L. Bierring and Donald Macrae, Jr., the essayist closing.

Paper on "Tetany—A Complication of Thyroid Surgery", with lantern demonstration, was presented by Dr. Robert H. Lott, Carroll, with discussion of the subject by Dr. John B. Synhorst, Des Moines.

Wednesday, May 9, Evening

At 6:30 o'clock the Fellows of the Society, the honored guests of the profession from without the state, members of their families, and friends, gathered in the Crystal Room, Hotel Montrose, for the annual banquet and social evening. During the dinner hour a musical program was given consisting of selections from the Kenwal Orchestra and a group of songs by the Coe College Male Quartet, immediately following which the Secretary introduced to the assemblage a number of those present who have been actively engaged in carrying on the work of the Society during this and former years, as follows: The dean of past-presidents in attendance at this meeting, Dr. David S. Fairchild, Sr., Clinton, president in 1896; Dr. George E. Crawford of Cedar Rapids, president in 1910; Dr. Paul S. Rhoads of the Scarlet Fever Committee, Chicago; Dr. Kennon Dunham, Associate Professor of Medicine, University of Cincinnati College of Medicine, Cincinnati; Dr. Harry E. Pfeiffer, president of the Linn County Medical Society, and Dr. Arthur Erskine, both of Cedar Rapids and active as members of the Local Arrangements Committee; Dr. Michael J. Kenefick of Algona, the president; Dr. Thomas U. McManus of Waterloo, the president-elect, and Miss Adelaide Folsom, Ripon, Wisconsin, official reporter for the Society during the past fourteen years.

The toastmaster, Dr. H. J. Jones of Cedar Rapids, then introduced the speaker of the evening, Dr. A. L. Murray, editorial writer for the Evening Gazette and Republican, who gave a masterly address on the subject of scientific medicine and the ideals of the physician.

Thursday, May 10, Morning

The meeting was called to order by Vice-President Parish at 9 o'clock.

The following papers were read:

"Fundamental Points in X-ray Diagnosis of Bone Tumors" (with lantern demonstration), Roy F. Bellaire, Sioux City.

It was moved by Dr. William Jepson that the privileges of the floor be extended to Dr. Raymond V. Brokaw of St. Louis, member of the American Society for the Control of Cancer. The motion was seconded and unanimously carried.

Dr. Bellaire's paper was discussed by Dr. Arthur W. Erskine, Cedar Rapids; D. N. Loose, Maquoketa, and Dr. Raymond V. Brokaw, St. Louis, the essayist closing the discussion.

"Diagnosis of Neurasthenia", Dr. John C. Parsons, Creston. Discussed by Drs. Frank A. Ely, Des Moines; Max E. Witte, Clarinda; Emil C. Junger, Soldier, and Granville N. Ryan, Des Moines, Dr. Parsons closing the discussion.

"The Employment of Oxygen in Joint Surgery" (with lantern demonstration), Dr. Karl R. Wernsdorff, Council Bluffs. Discussed by Dr. Archibald F. O'Donoghue, Sioux City.

"The Epochal Importance of 'De Motu Cordis'", Dr. Arthur D. Woods, State Center. Discussed by Drs. Frank M. Fuller, Keokuk; Walter L. Bierring, Des Moines, and Henry S. Houghton, Iowa City, Dean of Medical School, Iowa State University.

"Some Minor but Important Points in Kidney Surgery" (with lantern demonstration), Dr. Nathaniel G. Alcock, Iowa City. Discussed by Dr. Albert V. W. Hennessy, Council Bluffs.

Thursday, May 10, Afternoon

The meeting was called to order at 2 o'clock by the President.

Dr. James C. Kessler, Iowa City, read a paper on "Symptoms and Treatment of Exfoliative Dermatoses". Discussed by Drs. Harry C. Willett, Des Moines; Clarence E. Van Epps, Iowa City, and W. W. Bowen, Fort Dodge, Dr. Kessler closing the discussion.

Dr. Clarence W. Baldrige, Iowa City, presented a paper on "Clinical Differentiation of Hyperthyroidism and Various Functional Disorders". Discussed by Dr. A. C. Page, Des Moines, the essayist closing the discussion.

Dr. William A. Rohlf, Waverly, Chairman of the Surgical Section, presented a paper on "Embolism".

The Address in Medicine was given by Dr. Kennon Dunham, Associate Professor of Medicine, University of Cincinnati College of Medicine, Cincinnati, his subject being, "The Pathology of Pulmonary Tuberculosis Deduced from Physical Signs and the X-ray Plate".

Dr. Frederick W. Mulsow, Cedar Rapids, presented a paper on "Smallest Amount of Renal Tissue Compatible with Life—Malignant Sclerosis of Kidney" (with lantern demonstration). Discussed by Dr. Friedrich A. Hecker, Ottumwa.

Dr. Lafe H. Fritz, Dubuque, read a paper on "Diagnosis in Gall-Bladder Disease", which was discussed by Dr. Howard L. Beye, Iowa City.

Dr. Edward J. Harnagel, Des Moines, read a paper on "Conservative Management of Acute Osteomyelitis" (with lantern demonstration). Discussed by Drs. Charles S. Krause, Cedar Rapids; Donald Macrae, Jr., Council Bluffs; D. S. Fairchild, Clinton; Eugene Walcott, Des Moines, and Murdoch Bannister, Ottumwa, the essayist closing the discussion.

Paper on "The Incidence and Treatment of Persistent Occipito-posterior Positions", was read by

Dr. Harry W. Vinson, Ottumwa, and discussed by Dr. Mary L. Tinley, Council Bluffs.

Thursday, May 10, Evening

The meeting was called to order at 8 o'clock by the President.

Dr. John H. Peck, Des Moines, Chairman of the Medical Section, presented a paper on "Bronchiectasis", with lantern demonstration.

Dr. Arthur Joseph Bedell, Clinical Professor of Ophthalmology and Otology, Albany Medical College, Albany, gave an address on "The Relation of Ophthalmoscopy to General Medicine" (with lantern demonstration). At its close a rising vote of thanks was spontaneously extended to Dr. Bedell for the painstaking manner in which he presented his theme, as well as for the great number and instructive character of the illustrations which accompanied the text.

A smoker followed the scientific program.

Friday, May 11, Morning

The meeting was called to order at 9 o'clock by Vice-President Parish.

Dr. W. Roscoe Jepson, Sioux City, read a paper on "Salpingitis—Its Diagnosis and Treatment", which was discussed by Dr. Ralph E. Keyser, the essayist closing the discussion.

Dr. Everett D. Plass, Iowa City, presented a paper on "Simplification of Obstetrical Care". Discussed by Drs. Floyd W. Rice, Des Moines; Frank M. Fuller, Keokuk, and William E. Brown, Cedar Rapids, Dr. Plass closing the discussion.

Dr. Samuel T. Orton, Columbus, presented a paper on "Neurological Studies of Some Education Deviates in Iowa Schools", with lantern demonstration. No discussion.

The House of Delegates having adjourned, the President presided during the remainder of the session.

Dr. Wade H. Frost, United States Public Health Service, Washington, D. C., addressed the Society on "Poliomyelitis; with Special Reference to its Epidemiology and Prevention". Discussed by Drs. Fred W. Powers, Waterloo; T. B. Throckmorton and Henry Albert, Des Moines, and John W. Dixon, Burlington, Dr. Frost closing the discussion.

Upon motion, a rising vote of thanks was extended to Dr. Frost for his valuable contribution to the program.

Dr. Wendell L. Downing, Le Mars, presented a paper on "Acute Appendicitis as a Complication of Pregnancy", which was discussed by Dr. William E. Brown, Cedar Rapids, the essayist closing the discussion.

Report of the transactions of the House of Delegates was then presented by the Secretary, as follows:

Summary of Proceedings of the House of Delegates

"The first meeting of the House, held Wednesday, was attended by seventy-eight officers and delegates. The usual routine reports of the Secretary, the Treasurer, the Council, the Board of Trustees, and

the Delegates to the American Medical Association, were presented, and the report of the standing committee on Medico-Legal matters was taken care of and its report placed on file.

"Thursday, at the second day's meeting of the House of Delegates, seventy-one officers and delegates were present. Report of the committee on Scientific Work was received and considered. In this connection I think probably it would be well to call to your attention one little fact, namely: That there is nothing in the by-laws or in the constitution authorizing the creation of sections or the appointment of section chairmen, but for quite a number of years it has been the custom of the committee on scientific work to call in, as advisers, section chairmen so-called, one internist, one surgeon, and usually a man selected from the eye, ear, nose and throat specialists. Because of the fact that the number of our members who specialize in these branches exceeds the number of men belonging to any other specialty, the program committee has allowed those interested in this specialty to have a one-day sectional meeting of their own at which they could consider the subjects in which they were particularly interested. But some members expressed the opinion that the section itself should have more authority and be permitted to enlarge the scope of its activities. So the question was put up to the House of Delegates and the whole matter discussed, the result being that the question was laid on the table with instructions that things should proceed as in the past.

"The report of the committee on Public Policy and Legislation is one I will ask you to read carefully in the July number of the Journal. I will simply say that the committee, of which Dr. Burcham is chairman, did good and efficient work and is to be commended on its labors, and I am satisfied that much good will come in this state as the result of what has been accomplished by this committee. Therefore let me say that if a member of this Society has any constructive criticism to offer, the committee on Public Policy and Legislation would be glad to have such constructive criticism presented to it for its guidance. The House of Delegates endorses the work and activities of this committee, and I assure you that in coming years the committee on Public Policy and Legislation will be heard from in all parts of the state.

"It might be well to call your attention to the fact that a short time ago Dr. Woodward, legal counsel of the A. M. A. sent a wire to the secretary's office stating that there was pending before Congress a bill in which was incorporated a provision increasing the tax on narcotics from one to three dollars; and furthermore that the Finance Committee was not in favor of allowing physicians to deduct from their income tax the necessary expenses incident to attendance at medical meetings. We immediately wired Congress and the Finance Committee, assuring them that this organization felt it was unfair not to allow physicians to deduct the amount of traveling expenses incurred in attending scientific

meetings—that other organizations were allowed to do this, and that we felt our profession should be allowed the same.

“At the Friday morning session of the House of Delegates the first order of business after roll call was presentation of report of the nominating committee. For the office of President-elect, the names of John H. Peck, Des Moines; Bert L. Eiker, Leon, and Paul E. Gardner, New Hampton, were presented. Dr. Peck received the majority of votes, after which he was unanimously elected as President-elect of the Society for the ensuing year.

“The meeting next year will be held in Des Moines May 8, 9 and 10. The registration at this time stands at 605. This is by far the largest registration at any place outside of Des Moines.”

Upon motion, the foregoing summary of proceedings of the House of Delegates was accepted by the General Assembly.

The Secretary: “I feel that just at this time a rising vote of thanks should be extended to the Linn County Medical Society for the most cordial and hearty manner in which it has taken care of those in attendance at this Seventy-seventh Annual Session, and to assure the members thereof that the Iowa State Medical Society appreciates all that has been done for us.”

In accordance with the above motion a rising vote of thanks was extended to the Linn County Medical Society and to its members personally.

President Kenefick: “Before ringing down the curtain on the Seventy-seventh Annual Session I want to thank the officers and members for the kindly manner in which they have cooperated with me during the time I have been called upon to preside over this Assembly. I desire also to thank the officers of the Linn County Medical Society for the splendid manner in which they have cooperated with us in making this session a success.

“I now introduce to you my successor, President Thomas U. McManus of Waterloo.”

President McManus: “There is not much I wish to say at this time, more than to assure you that I am very grateful for the honors that the Society has seen fit to place upon me. I feel like taking the position rather seriously because my predecessor has been one of the most gentlemanly, conscientious practitioners of medicine I have ever known. I wish it might be said of all men in the profession that they have practiced medicine as carefully and as thoughtfully as I know it has been the practice of Dr. Kenefick to have done. I have the further distinction of having had elected a successor who is, I think, the largest doctor in Iowa; a man who will, I know, make good.

“I feel another distinction, and I am very glad to have present here this morning Dr. Frost, of the U. S. Public Health Service, whom I learned to know very well when he helped us in our poliomyelitis work back in 1909 or 1910. He, at that time, did Iowa a distinguished service, and I am very glad, Dr. Frost, that you can be here at this time.

“In conclusion I have only to say that I will, at this time, make my announcements of the chairmanships for the coming year, asking that the appointees immediately begin to give the scientific program their serious thought, in order that we may hold high the standards of the profession.

“Chairman of the Surgical Section, Dr. William L. Hearst, Cedar Falls.

“Chairman of the Medical Section, Dr. Jack Trey-nor, Council Bluffs.

“Chairman of the Section on Ophthalmology, Otology and Rhino-Laryngology, Dr. James A. Downing, Des Moines.

“I bespeak for these chairmen your support. They cannot use all of you on the program, but they will need some of you very badly, therefore give to them the support you have given the chairmen this year.

“Again I thank you.”

Dr. Kenefick: “A few years ago the Society adopted the custom of electing the president a year in advance of the time he assumed the duties of his office. Now I can imagine why it is necessary to do that in the A. M. A.; it is because the president-elect becomes accustomed to the harness and has a little more time to get in training for his work. The only reason I could conceive of for adopting such a practice in this Society was to give the newly chosen president-elect a year in which to reform. That plan did not work on me. I assume it is because I was too old to reform, but I hope the plan will work on Dr. Peck. I have the pleasure of presenting to you the most widely known physician in the state, Dr. Peck.”

Dr. Peck: “Mr. President, Ladies and Gentlemen: This is not my time to make a speech. I haven't any such beautiful words to say as you heard from Dr. McManus. I assure you, however, that I am greatly honored. I begin to feel that this is a pretty big job you have wished on me, and can only promise to work just as hard as and to profit by the experience of Mike and Tom, and try to do just as near like they have done and will do as possible. I thank you.”

Upon motion, the meeting adjourned.

Tom B. Throckmorton,
Secretary.

Transactions House of Delegates Iowa State Medical Society

Seventy-Seventh Annual Session, May 9, 10, 11, 1928,
Cedar Rapids

First Meeting, Wednesday, May 9

The House of Delegates met in the Roosevelt Room, Roosevelt Hotel, and was called to order at 3:35 p. m. by President Kenefick.

Roll call showed the presence of 18 officers, and 60 delegates, making a total of 78.

The President announcing that a quorum was present, the House then proceeded to the transaction of business.

The minutes of the Friday afternoon session held in Council Bluffs, having been published in the July, 1927, issue of the Journal, were considered to have been given sufficient publicity, and were accordingly held approved as published.

REPORTS OF OFFICERS

The Secretary, Dr. Tom B. Throckmorton, presented his report, which, upon motion duly seconded and carried, was accepted and such portions of the same as referred to finances were referred to the Finance Committee.

REPORT OF THE SECRETARY

To the Members of the House of Delegates of the Iowa State Medical Society:

The following report for the year 1927-28, is respectfully submitted:

For the twelfth consecutive time your Secretary has been privileged to stand before the House of Delegates and to present an annual report of his stewardship of the work accomplished in his office during the past year. As can well be imagined, a perusal of the various reports, heretofore presented, would disclose a similar vein of thought running through each and every one—that of harmony and of progress in Society affairs. To have progress there must be constructive criticism, and to have constructive criticism there must be harmony and unity of purpose. I consider myself most fortunate indeed to have the good will and friendship of the membership of this great medical profession, to feel that it is back of the Secretary's office in those matters of importance where sometimes quick decisions must be made, and it has always been an inspiration to hear, at various times, an expression of confidence concerning the work that has been accomplished, not for the few, but for the membership as a whole. True, no doubt, mistakes have been made; true, no doubt, some may have felt this office to be in error at times, but permit me to state that whatever mistakes or errors have occurred have not been intentional. An honest endeavor has been made on the part of your Secretary to serve, at all times, the profession as a whole to the very best of his ability, and for the courteous and kind manner with which

he in return has been treated, he is exceedingly grateful.

As in any well organized and progressive institution, the work of the past years has been prosecuted with zeal, all of which materially assisted in laying the foundation for what was accomplished during the year just passed. Nothing of a distinct or outstanding nature presented itself since our last meeting, hence I can but report in a rather cursory manner concerning those items of general interest to which your attention is now directed.

Membership

Quite naturally the subject of membership is of vital importance to any organization, for without members no institution can exist, let alone succeed. As the population of the state has increased, so has the number of physicians within the commonwealth's borders decreased, until, at the present time, there is one physician for every 1,042 inhabitants. These figures are based on the state's estimated population of 2,425,000 and the 2,328 members of our Society as were listed in the 1927 Directory of the American Medical Association. This means that the people of Iowa are being well cared for, from a medical point of view, and that to our Society belongs the responsibility of keeping the profession on the high plane of medical standard to which it has long since attained. Of the 3,302 physicians listed in the 1927 directory less than 1,000 were without membership in our State Society. This, I think, speaks quite well for the honest endeavor of the various county societies to include in their ranks every reputable practitioner who is qualified for membership.

There has been, however, some loss of members since my report of 1926, at which time our Society reached its high water mark in having a total membership of 2,435 members. With the increase in dues from \$5 to \$7.50, the membership sustained a distinct loss in that some 335 members allowed their names to be dropped from the roll. During the past year, however, every effort was made to induce the delinquent ones to return to the ranks of organized medicine, but only a rather meager response came from the letters sent out from this office. At present 2,193 members have paid their dues for 1928, and, as is to be expected, more dues will yet be received before the books of the year are closed. From an historical point of view it may be of interest to note that the membership of today is fully that of twelve years ago, in spite of the fact this Society sustained a net loss of 222 of its members during the past two years. I feel I speak the sentiment of the vast majority of the members, however, when I state that while it is the laudable ambition of every secretary to have every eligible practitioner of medicine within the ranks of organized medicine, still a one hundred per cent standard in membership is not attainable. This, therefore, reduces the problem to caring for a reduced membership in a manner even better than that of former years. This is best illustrated, I feel, by stating that with the membership at its high peak in

1926, the total dues amounted to \$12,175; whereas this year, with a lessened membership, the total dues amount to well over \$16,000; an increase of over \$4,000, with which to carry on the increased and multitudinous duties of this Society. With the lessening in number of new physicians, from which to recruit new members, it is only logical to conclude that numerically our Society cannot expect a great or continued growth, but it is a pleasurable reflection to contemplate a Society rich in tradition, virile in power, and fundamentally right as to principle and purpose.

Non-Membership Campaign

During the first year of my Secretaryship I became quite ambitious and thought it my duty to increase the membership of the Society if possible. I accordingly reviewed the lists of non-members as reported by the Secretaries of the various component County Societies and took it upon myself to send, to each and every one without the pale of the Society, a letter inviting him or her to apply for membership in the local County Medical Society. The result was anything but what I had reason to expect. In some places old sores were opened anew; animosities, long buried, broke out with renewed intensity, and some, who had left the ranks of organized medicine—either voluntarily or by request—proceeded to heap upon my youthful head a vitrolic avalanche of unkind remarks. Fortunately I survived and managed to eventually escape from the precarious dilemma by a series of side steps accompanied with profuse apologies. My motive had been actuated by the purest of desires—that to extend the privileges of medicine to all who desired the same—but the manner in which I went about it proved that I little realized the importance of the County Medical Society in guarding the portal of entry to the State Society. The By-Laws well state that the County Medical Society shall be the sole judge as to the qualifications of its members, and to the various County Societies is left the responsibility of determining who shall and who shall not become members.

However, I am convinced that there is still room for some missionary work in the vast majority of the counties. With the total membership of 2,193 physicians, there still remain 936 physicians who are licensed by the state and who are practicing in communities along with our members and yet are without the realm of organized medicine. Audubon County alone is 100 per cent, in that every physician in that county belongs to the local Society. Of course there are some physicians in the state who are ineligible in that they refuse to practice non-sectarian medicine. There are others who do not possess the qualifications necessary for membership and who would reflect on the membership of the State Society by their presence, rather than be a credit to it. It is right and proper that such persons should not be permitted to mingle with us as members. It would seem, however, that with a little additional work, especially in some counties, the total membership could be increased without in any

manner endangering our Society. As I stated a moment ago, Audubon County is the blue ribbon county with 100 per cent membership. There are six counties in which all registered physicians are members save one—Dickinson, Worth, Howard, Palo Alto, Sac, and Adair. There are eight counties in which the number of non-members is greater than the number of members, Allamakee, Delaware, Butler, Crawford, Louisa, Keokuk, Mahaska and Fremont. In Woodbury County there are 97 members and 49 non-members; in Scott County 79 members against 33 non-members; in Blackhawk County 50 members and 25 non-members, with practically the same ratio existing in Pottawattamie County. It may be that various causes are at work to bring about this amount of discrepancy in the non-members of these several counties, but I would suggest to the Councilors that a careful checkup be made during this coming year and every inducement be made, where possible, for eligible physicians to join their local societies.

Secretarial Duties

A moment ago mention was made of some of the multitudinous duties connected with the office of Secretary. There are some members who, from personal contact, are well conversant with the work going on in this office, but it is needless to state that by far the vast majority of our membership do not, nor cannot, know of all the work that is accomplished from one year to the next. True, it is, the usual routine work as Secretary is carried on from year to year, but with the medical world becoming more and more organized, many new tasks are thrust upon the Secretary which entails much more work than one would perchance surmise. The Secretary is no longer a man unto himself. Around him revolves the Trustees, the Councilors, the Secretaries of the ninety-seven constituent County Societies, all of whom are directly connected in such a way as to add momentum to, or retard the work of, his office. Consequently, considerable clerical work is entailed. For instance, over 2,000 letters were sent out last year dealing with problems connected largely with delinquent members and County Secretary affairs. An average of 10 letters a day for general correspondence throughout the year would be a conservative estimate, bringing the number of letters sent out between 3,000 and 3,500. If one is to add the 2,200 membership cards, the 2,233 mimeographed letters sent out for the Legislative Committee, and the addressing of some 30,000 Journal wrappers during the year, it will give an idea somewhat of the work carried on in the Secretary's office during the past year. It is needless to state that such could not have been accomplished, except at great expense, had it not been for the addressograph purchased a few years ago. The number of letters mailed, however, were not as great as last year, due to the fact that no intensive legislative campaign was carried on. The Iowa State Medical Society ranks quite high among her Sister State Associations, and it is only by such united support as has come to the officary and to

the Secretary that we can hope to maintain our present standing.

Conference of State Officers and Secretaries

In December, 1926, the maiden effort of the Society in having a Conference of State Officers and Secretaries was enacted. So successful was the Conference that last year the House of Delegates voted to continue the policy thus begun by the Board of Trustees. Consequently a second annual Conference was called January 12, 1928, in the Hotel Fort Des Moines and the following program was rendered:

How a Deputy Councilor May be of Service to the State Society—Corwin S. Cornell, M.D., Marion County.

The New Basic Science Law—Samuel T. Gray, M.D., Secretary of the Council.

The American Medical Association and Its Work—Olin West, M.D., Secretary and General Manager of the American Medical Association.

The Board of Trustees—Vernon L. Treynor, M.D., Trustee.

The County Medical Society and the Community—Mark C. Jones, M.D., Boone County.

Unfortunately the number present at the Conference was not as large as that of the preceding year. This was due, in part, to the fact that a news item printed in the Journal A. M. A., conveyed a conflicting date as to the time of the meeting. In spite of the lessened number, the Conference was a decided success and it is to be hoped that this House of Delegates will see fit to authorize another meeting during the coming year. I am firmly convinced that the contact thus made between the officers of the Society and the secretaries of the Component County Societies is an exceedingly important one, and one which will bear much fruit in time.

FINANCIAL STATEMENT
IOWA STATE MEDICAL SOCIETY
May 1, 1927 to May 1, 1928

Income

Balance in Bank April 30, 1927	\$ 415.48	
Dues	18,430.50	
Advertising	7,019.14	
Honorarium—Advertising Bureau A. M. A.	352.77	
Reprints	208.51	
Subscriptions—Non-members	65.70	
Sales	10.16	
		\$26,502.26

Disbursements

Discount and Commission to Advertising Bureau	\$ 1,155.32	
Paid to Robert L. Parker, Treasurer	25,342.38	
	\$26,497.70	
Balance in Bankers Trust Bank April 30, 1928	4.56	
		\$26,502.26

Other matters in which the office of Secretary has been active are reported to the House of Delegates from other sources.

Respectfully submitted,
Tom B. Throckmorton,
Secretary.

The Secretary then rose to a question of personal privilege and moved that telegrams of felicitation and good will be sent to the following sister state societies whose annual meetings were coincident with that of the Iowa State Medical Society: Medical Association of Georgia; Illinois State Medical Society; Kansas Medical Society; Mississippi State Medical Association; New Mexico Medical Society, and State Medical Association of Texas.

On being duly seconded, the motion was carried.

REPORT OF THE TREASURER

Dr. Robert L. Parker, Treasurer, presented his report, which upon motion duly seconded and carried, was accepted and referred to the Finance Committee.

Treasurer's Report

For the Fiscal Year Ended April 30, 1928

	Iowa National Bank Checking Account	Des Moines Savings Bank & Trust Company Savings Account
BALANCES IN BANKS—April 30, 1927	\$ 800.66	\$ 9,523.16
RECEIPTS—		
From Secretary	24,931.46	
Interest—Savings Account		181.83
Interest—Liberty Bonds		1,317.50
Sale of Second 4¼ % Liberty Bond		11,367.60
Profit on Sale of Second 4¼ % Liberty Bond		632.40
TRANSFER OF FUNDS—		
Remittance from Secretary to Treasurer	16,342.38	9,000.00
Savings Account to Checking Account	5,500.00	5,500.00
	\$21,842.38	\$ 3,500.00
TOTAL FUNDS	\$22,643.04	\$26,522.49
EXPENDITURES—		
Expenses for the fiscal year	\$20,870.74	
Purchase of Fourth 4¼ % Liberty Bonds		12,000.00
Premium on above		492.00
Accrued Interest on above		60.84
Total Expenditures	\$20,870.74	\$12,552.84
BALANCE IN BANKS—April 30, 1928	\$ 1,772.30	\$13,969.65
Respectfully submitted, Robert L. Parker, Treasurer.		

REPORT OF THE COUNCIL

The report of the Council was presented by the Chairman, Dr. Channing G. Smith, who stated that a detailed presentation of the work done by the various Councilors in their several districts would be included in the printed transactions of the House.

A supplementary report was then presented by the Secretary of the Council, Dr. Samuel T. Gray, dealing with the relation of the medical profession to Public Health matters.

Dr. John F. Herrick, Ottumwa, moved the acceptance of the reports of Doctors Smith and Gray,

and that the same be placed on file. Seconded and carried.

Report of the Chairman of the Council

The work of the Council during the past year has been in a great measure preparatory for what we hope and expect to accomplish in the future.

The appointment of an assistant councilor in each county has been a distinct forward step. Many of the men chosen have accepted this position as an honor; just as the Council intended it to be and by their work have honored themselves as well as our Society. Those who have not considered the work seriously will gradually be weeded out and their places taken by men better fitted for the work. We expect in the end to have an association of ninety-nine interested men acting as a connecting link between this Society and the individual members. We believe the annual meeting of the secretaries of the Component Societies is distinctly beneficial and advise its continuance. We ask that this Conference be enlarged to include the assistant Councilors.

The Council advocates the formation of an organization of physicians from our ranks who are willing to act as preceptors and proffer this aid to every student in the medical department at Iowa City. The duty of the preceptor would be to accept the student into his office during the summer vacations and teach him the art and business of medicine. The science of medicine is being taught better today than ever before. However, but little provision is made for the art and none whatever for the purely financial side.

Quoting from Dr. Bardeen, Dean of University of Wisconsin Medical School: "The art cannot, however, be well taught if the teachers of science at the University do not work in co-operation with and have the hearty cooperation of those who are actively practicing medicine as an art. To the degree that the universities now in charge of medical education fail to seek such cooperation, they are likely to fail in teaching the art. So far as the organized profession fails to give its cooperation in every practical way it is remiss in one of its most time honored obligations."

Attempts have been made by several universities to furnish preceptors by using professors as such and in Wisconsin teaching centers that can provide hospital facilities, laboratory equipment and ample library accommodations are chosen. However, in Iowa it is estimated that more than 80 per cent of the sickness is taken care of in the office and private home, so we believe that it would be better for the student to learn the art and business in the active practice and actual office work of the average physician here in this state. Owing to the many recent advances in our profession such an arrangement would be mutually advantageous. Personally I have had students in my office several summers and have learned more from them than I have taught.

We believe that our present plan of business organization is fundamentally wrong. The entire leg-

islative and executive power of our Society, excepting the annual deliberations of the House of Delegates is virtually in the hands of the three trustees. We have full confidence in the integrity and business ability of Drs. Fay, Herrick and Treynor and if they will agree to live forever and retain their present positions we might well rest content. However, when they are weary of well doing, our position may not be so fortunate. Eventually our plan will be altered and we have formulated suggested changes in the constitution. These changes tend to decentralize power and directly interest more physicians in the business side of our organization.

We are convinced that physicians should assume a more prominent part of all public health organizations. The foundations and the public itself back of public health movements are prepared to furnish increasing amounts of money to carry them through successfully. That they may be managed to benefit physicians as well as laymen is evidenced by the work of the Iowa Tuberculosis Association and the Iowa Heart Association. Their clinics are ably and ethically conducted by Drs. John Peck and Merrill M. Myers, and have been a boon to the public and an aid to the profession.

In an attempt to create interest and focus attention upon the influence that physicians may exert when convinced we have sent out more than one thousand letters to physicians urging support of certain candidates. We recognize that it is not within the province of the Iowa State Medical Society to select the personnel of our politicians. However, from the tone of the letters received from prospective members of both houses we believe that hereafter with the help of the assistant councilors the work of the Legislative Committee will be made easier. We acknowledge in our ignorance of local conditions some serious mistakes were made and hereby publicly ask your pardon therefore. We ask that the Legislative Committee at once plan a constructive, comprehensive, but conservative program, excluding personal interests and looking to the good of the whole people of Iowa, as well as the physicians; that we may in turn get this information to the individual members of this Society through the assistant Councilors.

The Council deplors the crippling of the work of the laboratories of the Iowa State Board of Health, through the lack of funds. The help of the laboratories is of increasing importance to laymen and physicians alike and should continue so to be without interruption. We request that proper provision be made for their maintenance and also a sum set aside for research work during epidemics.

A start has been made in forming a speakers bureau but nothing further has been done in establishing contacts with Womens' Clubs, Luncheon Clubs, Parent Teachers Associations, Farm Bureaus, etc. We believe that we are missing a great opportunity to advance the cause of public health, ethically advertise our profession and wean the people away from cults by not going on with this work. To do

this we advise the establishment of a Lay Education Committee to take complete charge and see if we cannot do something worthwhile.

The detail of the work of the Council has been thrown bodily on the office of the Secretary. The little that we have done could not have been accomplished but for the kindly help of Miss Young. During the years gone by our Society has accumulated a fund of more than \$40,000. Presumably this money has been levied and collected only for the good of the profession and we urge that a portion of this be so used. The Council itself requests a budget of at least \$1,500 for the coming year. This money to be expended only by direction of the Trustees.

Report of Councilor, First District

During the year I attended meetings of County Societies in three counties; viz.: Lee, Henry and Des Moines.

Both Lee and Des Moines Counties have active societies and their meetings regularly draw attendance from adjoining counties. The four remaining counties in the district were not visited. If they held meetings during the year I did not know it.

The Southeastern District Society which meets once a year in this district held its meeting last October at Burlington. This brings together men from nearly every county in the District and some from contiguous territory.

According to my observation interest in scientific medicine is not diminishing, but better attended meetings are being held in the larger centers and fewer meetings are held in the less populous centers.

As stated in my last year's report I believe that one of two things will happen: Societies in counties of smaller population will unite with two or more counties to form larger societies, or if the smaller societies maintain their organizations they will exist only as skeleton organizations to maintain legal membership of physicians. The larger societies can put on better programs, and physicians in this District apparently prefer to travel some distance to attend these larger meetings. The building of hard roads will hasten the above tendency.

Respectfully submitted,

Geo. B. Crow,
Councilor, First District.

Report of Councilor, Second District

In the second district I find the County Societies are all flourishing. Programs are put on every month excepting July and August. As in all other places I think the trend is to have outside speakers. Some of the societies mix the two, local and outside speakers, and claim ideal results from it.

Respectfully submitted,

A. P. Donohoe,
Councilor, Second District.

Report of Councilor, Third District

The following is a report of the Councilor for the Third District, on conditions pertaining to medicine for the past year.

Bremer County Medical Society was visited by invitation on May 28th. It was a dinner meeting with full attendance. There were also present several doctors from Butler County. The meeting was held in the doctors' room at the hospital, was very peppy and instructive.

Blackhawk County Medical Society was visited on January 5th. This meeting which was their annual, was well attended. Their program of one meeting a year was criticized by the Councilor and reasons given for that criticism. Steps were immediately taken by the society to correct this matter and it is the belief of the Councilor, from information received that a change of program which will give the County Society more prominence is now being carried out.

A letter with questionnaire was sent to all county societies in the district, asking for certain information and dates of meetings. Only three replies were received, so it was not possible to visit all societies in the district. I have no information concerning Wright, Franklin, Butler, Hardin and very little of Delaware. A meeting date was promised for Delaware, but never received.

Because of an appeal, a special meeting of the Dubuque County Society was visited on April 3rd. For more than a year and a half, the Councilor has been in more or less constant touch with the Dubuque situation, which is a controversy between the society and a group of four who have associated themselves together and calling their group a clinic. This controversy has waxed very warm between the society and the group in which charges and counter charges have been made. Every effort possible has been made by the Councilor and the Assistant Councilor to bring about a satisfactory settlement of conditions, but to date there has been absolutely no result, and there is every reason to believe that the matter will be appealed to the Board of Councilors for consideration and if possible, disposal.

Respectfully submitted,

Fred F. Agnew,
Councilor, Third District.

Report of Councilor, Fourth District

The Councilor from the Fourth District begs to report that in this section of the state everything has been running along about as usual. I personally visited most of the County Societies, and find that the assistant Councilors are of a great deal of help to us, for it is almost impossible for a Councilor to visit all the counties in his district. I have urged all the assistant Councilors to try to induce the men in the different counties to become members of the State Society.

Respectfully submitted,

Paul E. Gardner,
Councilor, Fourth District.

Report of Councilor, Fifth District

The condition of the County Societies of the Fifth District are about the same as they have been for several years.

There are two outstanding Societies in the District, those of Linn and Marshall Counties, and Tama County also has an excellent Society.

The Linn County Society has had a membership of 95 the past year; and has held eight meetings, with an average attendance of 70. At some of the meetings there have been a hundred or more in attendance. It is doing to some extent the work of a District Society; as invitations are regularly sent to the physicians of surrounding counties, and many of them attend regularly, and at times constitute nearly half of the attendance.

One or two men of prominence and authority from various medical centers, are on each program—and the meetings are really worth while. There are 28 eligible men in the county not members. Probably the strongest criticism that can be of the Society is the non-attendance of a considerable number of members. Delegates, Dr. H. E. Pfeiffer, Dr. J. M. Knox; Alternates, Dr. V. H. Hasek, Dr. R. Proctor.

It is difficult to keep up a profitable Society in Jones County. They keep up their organization, and all the physicians in the county are members: viz., 13. They have a regular plan of attending the Linn County meetings, and hold their annual business meeting at Cedar Rapids with an average attendance of 8. Delegate, Dr. J. A. Hoegan; Alternate, Dr. John Fraser.

The Cedar County Society is in the poorest condition of any Society in the District. There are 37 physicians in the county, and a membership of about 15; and have held no meetings this year. A number of them attend the Linn County meetings. Delegate is Dr. J. E. Smith; Alternate, Dr. Fred Montz.

The Benton County Society keeps up its organization, with 13 members, and have one business meeting. There are 4 physicians in the county not members. The Delegate is Dr. R. A. Seiler; Alternate, Dr. Don H. Newland.

Tama County keeps up an active Society with 28 members, with 4 physicians in the county not members. Have held 6 meetings the past year with an average attendance of 13. The plan is to have a banquet, with ladies present, followed by a program. Papers by members, and outside doctors; and presentation of clinical cases, and discussion. General fellowship. This would be an admirable plan for some other counties to follow. Delegate is Dr. M. L. Allen; Alternate, Dr. A. A. Pace.

Grundy County has a small Society in good condition. There are only 13 physicians in the county, with 12 members. They have held 3 meetings with average attendance of 8. Delegate, Dr. George Gould; Alternate, Dr. R. M. Collison.

Marshall County Society has a membership of 42. All physicians in the county are members but one. They hold monthly meetings for nine months of the year, with an average attendance of the membership of 38. The average attendance at these meetings was 45; as invitations are sent to physicians of surrounding counties.

First place must be given to Marshall County for general active interest in Society work—the regular attendance of almost the entire membership. Delegate, Dr. H. E. Woods; Alternate, Dr. G. F. Johnson.

Respectfully submitted,
George E. Crawford,
Councilor, Fifth District.

Report of Councilor, Sixth District

The seven counties all have active, well officered Societies. This is the first time for several years that this entire District has been in a well organized condition. There is harmony, peace and a good interest in each county.

There are only three physicians in the District reported not eligible for membership.

The average number of meetings, is seven per year, with an average attendance of thirteen.

One-half of the counties do nothing in a social way to promote interest. The Societies depend largely on home talent for programs, but it is the general opinion that outside talent adds to the interest. Very little attention is paid to the business aspect of the profession. The majority of the counties do not believe physicians realize as much for their labors as those in other avocations, in comparison with the cost of preparation and the cost of doing business.

All the counties are interested in the legislative program of the State Society. About one-fourth of the physicians of the district are not members of the County Societies. It is difficult to explain why every physician does not feel the need of membership, in an organized way, of his profession.

Davis County has an annual picnic.

Mahaska County has a supper preceding each meeting and an occasional banquet.

Wapello County has two meetings per month for nine months. Programs are published in advance for the entire year. Each one on the program is definitely under obligation to appear, and if not possible to be present, changes date with some other member. This insures a good program at each meeting.

A good secretary and a good program are very essential for a good meeting. A definite effort to promote the social feature of the Society and more attention given to the business part of the profession will do much to keep a County Society in good working condition. A greater interest in legislation having to do with the public health and of matters pertaining to physicians, will keep them bound together in one common purpose and give them the power and influence which they should rightfully exercise in their community.

Respectfully submitted,
S. T. Gray,
Councilor, Sixth District.

Report of Councilor, Seventh District

The Honorable House of Delegates: Have visited all the Societies in the Seventh District one or more

times. Each Society is organized and is functioning. Thanks to the aid of the assistant Councilors all of them are very good with one exception, and a neighboring county has promised to help out this Society during the coming year.

Contrary to the generally accepted opinion there is no dearth of physicians in this district. True there are some localities that formerly had a physician, have none today and their sickness must be cared for by doctors from neighboring towns, thereby greatly adding to the expense of medical care. This is unfortunate but any community that will guarantee a return commensurate to the needs of the present day physician will have no difficulty in obtaining one.

Respectfully submitted,
Channing G. Smith,
Councilor, Seventh District.

Report of Councilor, Eighth District

To the Delegates of the Iowa State Medical Society: Adams County, reported by William F. Amador, assistant councilor. Six members in good standing, the same as last year. They have had four meetings, which were well attended and they used local talent.

Appanoose County, reported by Charles S. Hickman, assistant Councilor. There are seventeen members in this Society, three less than last year. They have had three meetings, which were well attended and they used local men for the work. There was one death, Dr. C. P. Bowen.

Clarke County, reported by George I. Armitage, assistant councilor. There are six members in the Clarke County Medical Society, the same as last year. They have had two meetings, which were well attended. They use local talent.

Decatur County, reported by Bert L. Eiker, assistant Councilor. There are fourteen members in the Decatur County Medical Society, three less than last year. There has been two meetings, which were well attended. They use both outside and local talent.

Fremont County, reported by Ambrose Wanamaker, assistant Councilor. There are nine members in good standing, one more than last year. They had one meeting, which was not well attended. They use outside talent. They have sixteen physicians in Fremont County but some of them think they cannot afford to pay the dues. We believe the others would join if they were earnestly solicited.

Lucas County, reported by George F. Niblock, assistant Councilor. They have sixteen members in good standing, two more than last year. They have had two county meetings. They have a dinner each month at Hotel Chariton, the first Tuesday of the month. Their meetings are well attended, they use outside talent.

Page County, reported by J. F. Aldrich, assistant Councilor. They have twenty members in good standing. They have held four meetings since last May. The meetings were well attended, using outside talent.

Ringgold County, reported by Elbert J. Watson, assistant Councilor. They have ten members in the local society. Dr. Horne passed away last year. They have had several good meetings. Dr. DeLong of Tingley, President, and Dr. Bailey of Mt. Ayr, Secretary, are both confined to their beds by serious illness. The attendance has been very good. They have had three clinics in the last year, one by Drs. Peck and Myers, one by Drs. Myers and Bierring and one by Dr. Luginbuhl. They are very grateful to members of other counties for attending their meetings.

Taylor County, reported by Dr. George W. Rimel, assistant Councilor. There are 14 members in good standing, one more than last year. They have had two meetings, which were well attended. They use both outside and local talent. Most members of the Society failed to see the reason for raising the dues to \$7.50 a year. They seem to feel that this is entirely too high, for the benefits they receive.

Union County, reported by Dr. Leslie Lamb, assistant Councilor. There are twenty members in the Union County Medical Society, they have held one meeting since last May and there were eight or nine members present. They have a staff meeting at the Community Hospital once a month. The staff lunches together and they talk over current medical topics. There are usually ten or twelve present at these meetings, and visiting physicians from other towns are invited. While there has been only one meeting of the Union County Medical Society, yet one-half the members of the Society meet in Creston once a month.

Wayne County, reported by Benjamin S. Walker, assistant Councilor. There are eleven members in good standing, four less than last year. They have had three meetings since May, 1927. The meetings were only fairly well attended. They use both outside and local talent. They claim the road conditions were responsible for their poor attendance.

There is a loss of fifteen members in 1928, as compared with last year. We believe there is a feeling, that instead of the State Medical Society using forty thousand dollars, that they have on hands, for research work, that the dues should be decreased instead.

The doctors of the Eighth District have been hit as hard in a financial way, as any other line of business.

Respectfully submitted,
Fred A. Bowman,
Councilor, Eighth District.

Report of Councilor, Ninth District

Honorable House of Delegates: There has been no material change in the conditions of the medical profession in the Ninth District during the past year.

There is a harmonious feeling existing in every county in the District.

Most of the men who are eligible, are members of the different Societies, and the County Societies are

nearly all efficiently organized and doing creditable work.

Respectfully submitted,
Henry B. Jennings,
Councilor, Ninth District.

Report of Councilor, Tenth District

The general condition of the physicians of all the thirteen county medical societies in the Tenth District is very satisfactory and there has been developed unusual interest in organized medicine since my report was made in 1927. It is to be noticed with interest that Hamilton County Medical Society has, so to speak, come to life. The lack of interest in this Society was not due to its members being uninterested in organized medicine but through carelessness they became more interested in the staff meeting in the hospital at Webster City. Consequently, from year to year we found only from one to two or three paid up members at the State Society meeting, and some few times no representation at all. In the last year they have changed their paid-up membership from one to seventeen. Dr. Galloway is now secretary and we will in the future see a strong county medical society.

Humboldt County Medical Society while a very small county with few members is in a healthy condition.

All of the other County Medical Societies in the Tenth are in good working order and although the district medical societies may detract in a measure from the interest in the county societies, there has been an increased interest in organized medicine and a better feeling among the profession.

As formerly in my report I feel like congratulating the county secretaries in all of the thirteen county medical societies for their good and efficient work and would recommend to all our county medical societies to use due consideration and elect an efficient active county secretary.

Respectfully submitted,
Watson W. Beam,
Councilor, Tenth District.

Report of Councilor, Eleventh District

Should I be required to describe conditions in the Eleventh District for the past year very briefly I would say it was "individualistic". The volume of sickness has remained about the same as last year which was thought to be the lightest in our history. The depressed financial condition of the farmer filters into the town and the profession and physicians have kept close to shore. This has accentuated our individualistic situation.

There is a growing tendency to be less lavish in offering service, without compensation, for the control of communicable diseases. Diphtheria immunization has not progressed as rapidly as it should on account of the vicious attacks made by the cults who tell people the children's diseases come from the "poison" injected by the doctor to prevent diphtheria.

However, the work is going on, due largely to the activity of the Iowa Health Association.

My hobby the past year has been to stimulate a desire, on the part of physicians, to hold postmortems. I would say we were woefully apathetic in this regard and the flickering flame of approval I receive indicates the danger of self-satisfaction. I have urged that County Societies select at least two of their members to do the work, supply them with proper equipment, books on the subject, and moral support and build up local pathologists. Suitable undertaking parlors are now available in almost every town in the district and undertakers assure me that the work will receive their hearty cooperation. Every member of the County Society to be notified and attend the post-mortem when possible.

The public, I believe, will respond to our request when it is understood we are seeking knowledge that will save others.

The pre-school health crusade is being kindly received and I am convinced means much for these children.

The Perkins and Klaus-Haskel laws are not being used as much as they could be on account of our distance from Iowa City and an ingrained feeling that this class should produce some revenue for the doctor.

The "small town" hospitals in this district now number 21, with 351 beds and an average of 151 patients. There is a bed for each 600 of population and an average of one out of 1,417 occupying a bed. Sioux City hospitals have 534 beds with an average of 300 occupants. Considering the large territory the city has to draw from it would appear the small town hospitals are holding their own very well.

Our District Societies are holding most excellent meetings with programs almost exclusively by local men. The attendance runs from 30 to 40 with much larger attendance at the Upper Des Moines and Twin Lakes Societies where representative men from noted schools supply the program.

Respectfully submitted,
G. C. Moorehead,
Councilor, Eleventh District.

The report of the Board of Trustees was presented by Dr. Oliver J. Fay, Des Moines, Chairman of that body.

A supplementary report dealing with the defense policy of the State Society and also the necessity of employing a Managing Director to work under the instruction of the Trustees and the Secretary, was then presented by Dr. John F. Herrick, Ottumwa, member Board of Trustees.

After a discussion relative to the merits of obtaining a master policy, covering the entire membership of the Society, in relation to Medico-Legal defense and indemnity, by Doctors Chas. B. Taylor, Ottumwa; Frank A. Ely, Des Moines, and M. Nelson Voldeng, Woodward, the motion made by Dr. John F. Herrick, Ottumwa, that the reports be received and placed on file, was seconded and carried.

REPORT OF THE BOARD OF TRUSTEES

Your Board of Trustees can again report that we have lived within our income, and have added something over six thousand dollars to our investment. This year our expenditures for medico-legal defense were still \$2,683.21, since under our compromise agreement with the insurance company we are required to pay half the costs of defense in cases pending. As these older cases are disposed of, this large annual item of expense will be saved the Society. It was manifestly unfair that the Society should pay such expense, or any portion of it, when legal defense was supplied to the insured under the provisions of his insurance policy, and in the future, the entire cost of defense will be borne by the insurance company. The Society will continue to co-operate in such defense, rendering all assistance compatible with sound medical ethics, and the arrangement should be a most satisfactory one if the insurance company were to give a better earnest of its good faith. Its secretive attitude in regard to its financial arrangements with legal counsel is not conducive to the fullest confidence. The Committee on Medico-legal Defense does a vast amount of hard work, faces many unpleasant situations, and it and the Society it represents are in return entitled to the fullest confidence of the insurance company.

The Legislative Committee has been unusually active in the services of the Society during the past year. It has met with the Board of Trustees in order that the legislative work, so important to the profession of the state, should accord with the general policy of the Society. Before the next annual meeting, there will be another session of the State Legislature and it is vital to the interests of our Society that the individual members, of the Society, powerless as units, should present a united front, should stand together. The profession of the state, as a profession, can have no political interests to further, must have but one aim in view—the protection of the health of the state, and of its own professional interests. We have learned through bitter experience that we can accomplish little once the legislature is in session. Our most effective work must be done now in working for candidates who have shown themselves friendly to our interests, or who have pledged themselves to be so. The legislative committee has done a vast amount of arduous work in holding up its end—more than we have a right to ask from any member of our Society. Yet even so there is much that could be done only by someone whose sole business it would be to look after Society interests, i. e., by a full-time managing director. Not only in some of the business activities of the Society could he contribute much to the financial success of the Society, but as a liaison officer between profession and public, he could further its professional interests.

The report of the Delegates to the A. M. A. was presented by Dr. B. L. Eiker, Leon. Motion was

made by Dr. O. J. Fay, Des Moines, that the report be accepted and placed on file. Seconded.

Dr. Joseph H. Schrup, Dubuque, discussed the report relative to the question of contract practice, after which the motion being duly put, was carried.

REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Mr. President and Members of the House of Delegates of the Iowa State Medical Society:

The proceedings of the House of Delegates of the American Medical Association have been printed in the Association's bulletin, also in the Iowa State Medical Journal. Therefore, it is reasonable for your delegation to the House of Delegates of the American Medical Association, to assume that the majority of you are more or less familiar with the actions of this law-making body at its recent meeting held in Washington, D. C. So important have the acts of the House of Delegates of the American Medical Association become to organized medicine that a repetition of the more important transactions of that body may not be amiss at this time.

The Speaker of the House in his annual address emphasized the necessity for adequate nursing service, and of protecting the public against incompetent and ill-equipped hospitals. The President of the Association recommended a system of censorship to safeguard all medical publications for the lay press; while the President-elect asked that more attention be paid to medical ethics.

The Judicial Council recommended that articles of an educational nature pertaining to medical and health subjects and intended for general distribution among the public should express the consensus of opinion of the medical profession in preference to personal views.

The Reference Committee to whom was referred the report of the Council on Medical Education asked that the Council devote more attention to the supply of physicians in rural districts and to the training of general practitioners. They approved the decision of the Council to require a minimum number of necropsies in all hospitals giving internships.

Constituent associations and component societies were again urged to establish disaster relief committees so as to be ready to act in time of need.

The state societies were asked to appoint their delegates early enough in the year to permit the Speaker of the House of Delegates of the American Medical Association to announce his reference committee thirty days in advance of the annual session.

In the matter of contract practice, the Judicial Council held that some contracts were ethical and some were not, that each contract must be judged upon its own merits.

The House of Delegates approved a resolution to the effect that physicians were under no obligation to furnish information to insurance companies or indemnity companies unless said companies paid the usual fee charged for similar services to private individuals.

The Committee appointed to secure information relative to the need for establishing a home for worthy dependent physicians and their wives, reported that the investigation did not warrant the American Medical Association in establishing and fostering such a home.

John Barleycorn and his ever-present adversary, the Volstead Act, never fails to furnish linguistic exercise for everyone from the Bishop in the pulpit to the tramp in the freight-car. More useless discussion and more radical propositions have come before the House of Delegates of the American Medical Association on this question than almost any other. To expedite business and yet insure careful consideration and sane conclusion it was decided that all matters pertaining to alcoholic questions coming before the House of Delegates be first referred to the Board of Trustees for investigation.

Proposed amendments to the by-laws which must lay over for one year were as follows:

Defining the powers of the Judicial Council.

Defining the legislative power of the Association and the rights of the House of Delegates to expel a Fellow on recommendation of the Judicial Council.

Changing the Membership of the Council on Medical Education and Hospitals.

Minneapolis, Minnesota, was selected as the next meeting place, and the following officers were elected for the ensuing year:

President—William S. Thayer of Baltimore.

Vice-President—Charles A. Elliott of Chicago.

Secretary—Olin West of Chicago.

Treasurer—Oscar A. Hayden of Chicago.

Speaker of the House of Delegates—F. C. Warnshuis of Grand Rapids.

Vice-Speaker—A. H. Bunce of Atlanta.

Trustees—E. B. Heckel of Pittsburg; Rock Slyster of Wauwatosa, Wisconsin.

President Jackson then made the following nominations, which were approved:

For Judicial Council—Donald Macrae, Jr. of Council Bluffs; Dr. Frank Cregor of Indianapolis.

For Council on Medical Education and Hospitals—Emmett P. North of St. Louis.

For Council on Scientific Assembly—Frank H. Lahey of Boston.

Respectfully submitted,

Thos. F. Thornton,

Fred Moore,

B. L. Eiker,

Delegates.

Under the head of Standing Committees, Dr. Frank A. Ely, Chairman, presented the report of the Medico-Legal Committee, which upon motion duly seconded and carried, was accepted and placed on file.

REPORT OF MEDICO-LEGAL COMMITTEE

Supplementary to the report of Mr. Charles M. Dutcher, medical counsel for the Iowa State Medical Society, the Medico-Legal Committee wishes to make the following report.

During the year last passed, the committee has attended to the various routine details incident to its duties, such as instructing various members who have been sued for malpractice, or against whom, suits have been threatened, as to the proper methods of cooperating with our medical counsel. In addition to this, it has rendered advice on several occasions, with respect to medico-legal matters which required some consideration as to whether or no, said matters came within the jurisdiction of the Society. With a view to promoting discussion and seeking advice, it has been deemed expedient to give a brief outline of a few of these borderline questions and the decisions rendered.

Item I

The secretary of a certain city medical society consulted Attorney Dutcher concerning a controversy which arose out of the appointment of a local physician, by the county board of supervisors, to care for the county poor. The inquirer wanted to know whether such an appointee had any right to detail other physicians to look after county patients, and whether or no, said appointee had any right to dictate the fees which should be charged for their services.

The matter was referred to the Medico-Legal Committee. The inquirer was informed that, inasmuch as the situation was one involving matters of local medical interest, that the inquiry indicated a local dispute, and that such matters could be determined by reference to the statutory enactments laid down in the Code of Iowa, the committee felt that the State Medical Society had no jurisdiction in the case and that the legal information involved, should be obtained at the expense of those benefited. The inquirer was referred to the attorney general for further advice.

The committee, in rendering this decision, fully appreciated the fact that the State Medical Society, through its Medico-Legal Committee, should, as far as possible, render assistance in molding the medico-legal policies in the state, but it felt that nothing was to be gained for any one by taking any stand in this case. It may be added, parenthetically, that if the State Medical Society wishes to supervise minor medico-legal matters of this kind, the by-laws should be made more explicit as to the duties of the Medico-Legal Committee.

Item II

Item II involves the question as to whether or no, the medical defense features of the Iowa State Medical Society should protect a member who insists on collecting a medical bill in the face of an impending counter suit for damages. The specific case here cited, involved the collection of a physician's bill of seventy-eight dollars, chiefly incurred in the treatment of a Colles' fracture. The patient claimed poor results in the fracture treatment. The interested physician was informed by the committee, that on general principles, the notoriety involved in the event of a damage suit, would do him more than

seventy-eight dollars worth of harm, and that it would seem expedient to forget the bill rather than stand suit for malpractice. This advice did not suit the physician in question. The matter was then taken up by the medico-legal committee as a whole, and it was decided that, inasmuch as counter malpractice suits are so commonly brought to prevent the collection of just medical fees, as a matter of general medico-legal policy it is a bad precedent to allow too many of these counter claimants to get away with their unjust counter claims. Accordingly, the committee instructed Attorney Dutcher to render such assistance and advice as he might see fit, in adjusting or defending, this case as far as the malpractice feature was concerned.

It occurs to the committee that in cases of this nature, it would be well to have these counter claimants examined by three physicians, preferably from a district other than that in which the counter claimants live, and that upon their decision, should depend the policy of the Society, in defending or refusing to defend, the physicians against whom the counter claims are brought. This method of procedure would be consistent with the high ethical ideals of our profession in that it would not make our Society a party to exacting payment of medical fees, where real malpractice exists.

Item III

A member of the Society consulted the Medico-Legal Committee concerning a legal situation which had arisen in connection with an attempt at forced collection of an account contracted by a woman who had been divorced from her husband because he was alleged to have transmitted gonorrhea to her. The physician in question attempted to collect his account from the divorced husband. When the data concerning the same, was handed to a collection agency, the physician's clerk accidentally copied a private memorandum to the effect that gonorrhea had been transmitted from the former husband to the patient. Upon this ground, the divorced husband brought as a counterclaim, a suit for slander. The physician asked the committee whether or no, the Society's medical defense features covered the situation. After deliberation it was decided that in this case the slander suit was virtually a malpractice suit, and should come under the jurisdiction of the legal department of the Society. Accordingly, Attorney Dutcher was advised to carry on the defense.

Item IV

On December 20, 1927, Attorney Dutcher dispatched a communication to the Medico-Legal Committee asking advice as to whether or no he should appear before the Supreme Court of Iowa for the purpose of making a verbal argument in the case of Whitmore vs. Herrick. His reason for seeking this advice was as follows: Counsel for the plaintiff was seeking to establish a legal precedent which would be very vicious, and detrimental to medical interests. It seems that many years ago, common carriers

which guaranteed to deliver passengers or freight safely at a given destination, were subject, in the event of failure to fulfill their contracts, to a legal doctrine known as "*res ipsa loquitur*", which, I am told, means "The thing speaks for itself". This doctrine made any failure to deliver passengers or freight safely, *prima facie* evidence of liability. In the case under consideration, counsel for the plaintiff was attempting to prove that x-ray burns speak for themselves as to negligent inspection, or manipulation of, the machines used in giving x-ray treatments. It will be quite obvious to all, that this doctrine, if established in x-ray burn cases, might very easily be made to apply to other forms of apparatus, or instruments, used in the treatment of disease. One does not have to stretch the imagination very far to think of the possibility of surgeons being sued for malpractice because of post-operative deaths of patients, and such claims being legally upheld on the ground that post-operative deaths speak for themselves as being the result of faulty handling of scalpels.

In the case just cited, counsel for the plaintiff desired that the attorneys for both sides submit a written argument. Attorney Dutcher felt that a verbal argument would be far more safe, and although said verbal argument entailed greater expense to the Society, the Medico-Legal Committee authorized Mr. Dutcher to go ahead, and make an argument in person.

It has recently come to the notice of the Medico-Legal Committee that a number of individual members of the Iowa State Medical Society have expressed their desire that said Society enter into a blanket contract with some indemnity company for the maintenance of liability insurance against malpractice. It is the desire of the committee to further the best interests of the majority of our members; accordingly it has made some preliminary inquiries into the matter.

As far as can be determined the chief advantage in carrying indemnity through a master policy issued to the Society as a whole, with optional acceptance by its individual members, is a slightly reduced rate. One company has indicated its willingness to indemnify the members of our Society, under a master policy issued to the Society as a whole, for twenty dollars per capita, per policy year, the coverage amounting to ten thousand dollars for any one claim, or a maximum of thirty thousand dollars for any one policy year. They are willing to issue three-year contracts with individual members, under this plan, at a lower rate than stated above.

In the Kansas State Medical Society, which has its own defense features as has our Society, about two hundred and fifty members carry these indemnity policies issued under the Society's contract with an indemnity company. It is not the purpose of the medico-legal committee, at this time, to offer any arguments for or against, this blanket type of indemnity insurance. The matter is brought up with

the view only, to stimulating discussion pertaining to the matter.

Respectfully submitted,
F. A. Ely, Chairman,
H. B. Jennings,
Geo. C. Albright.

Dr. John F. Herrick, made a few remarks concerning the defense situation as is now carried out by the Society, after which Dr. Charles B. Taylor, Ottumwa, moved that the Medico-Legal Committee carefully consider the advisability of blanket insurance of the members of the Society, by a master policy and report its recommendation to the House of Delegates at its meeting next year. Seconded.

After a discussion by Secretary Throckmorton, Doctors Ely, Jennings, Taylor, and Augustine, the question was put and lost.

Owing to the lateness of the hour further business was not considered by the House and the same adjourned at 5:45 p. m.

The delegates from the various congressional districts then assembled to select a member from their various districts to act as members of the Nominating Committee. The Committee reported was as follows:

First District—Dr. C. A. Boice, Washington.

Second District—Dr. P. A. Bendixen, Davenport.

Third District—Dr. W. L. Hearst, Cedar Falls.

Fourth District—Dr. W. E. Long, Mason City.

Fifth District—Dr. M. L. Allen, Tama.

Sixth District—Dr. Evan S. Evans, Grinnell.

Seventh District—Dr. Thos. A. Burcham, Des Moines.

Eighth District—Dr. Thos. E. Powers, Clarinda.

Ninth District—Dr. Frank E. Bellinger, Council Bluffs.

Tenth District—Dr. D. J. Townsend, Lohrville.

Eleventh District—Dr. P. B. Cleaves, Cherokee.

Second Meeting, Thursday, May 10

The House of Delegates met in the Roosevelt Room, Roosevelt Hotel, and was called to order at 8:05 a. m., by President Kenefick.

Roll call showed the presence of 15 officers and 56 delegates, making a total of 71.

The President announcing that a quorum was present, the House proceeded to the transaction of business.

The reading of the minutes of the first day's meeting was dispensed with.

The report of the Committee on Scientific Work was then presented by the Chairman, Dr. Michael J. Kenefick, who stated that some criticism of the work of the committee had been made and asked that Secretary Throckmorton present the matter more in detail. Secretary Throckmorton then read a letter, without reference to its author, expressing dissatisfaction and criticism of the Scientific Committee, in regard to the Chairmanship and Program of the Eye, Ear, Nose and Throat Section, and also

his reply to the same. He then stated that a form letter, accompanied by a copy of the letter expressing dissatisfaction and criticism, was sent to each of the Section Chairman who had served during the past twelve years. A tabulation of replies received from eleven of the Past Chairmen signified a surprise on the part of the vast majority that any criticism or dissatisfaction existed, and indicated that they were perfectly satisfied with the present manner with which the section activities and section work were being carried on. The Secretary asked that the House express its wish in regard to whether the future work of the committee should be carried out as had been done for many years past, or whether some change should be made delegating more authority to the Section in regard to the selection of its Chairman and the preparation of its Scientific Program.

Dr. Arthur D. Woods, State Center, then asked that the author's name to the letter read by the Secretary be made known, to which President Kenefick replied that the author's name was Dr. Edwin Cobb, of Marshalltown.

Dr. Oliver J. Fay, Des Moines, after expressing his opinion that the Scientific Committee proceed according to the laws governing its duties, moved that the subject be laid on the table. Seconded and carried.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. Thomas A. Burcham, Chairman of this Committee, presented the report, after which he moved its acceptance. After being duly seconded the report was discussed by Dr. John F. Herrick, who moved as an amendment to the motion that the House of Delegates fully endorse the work and actions of the Committee on Public Policy and Legislation. Seconded.

After a discussion by Doctors Burcham, Dyer and Fay, Doctor Samuel T. Gray, Albia, moved as an amendment to the amendment that this House of Delegates endorse the stand taken by the committee in reference to the Wamstead Bill. Seconded by Dr. O. J. Fay, and discussed by Doctors Kennedy, Reed and Burcham; after which the same was put and duly carried.

Dr. Samuel T. Gray, Albia, further moved as an amendment to the amendment that the House endorse the attitude and work of the Legislation Committee in reference to the Workmen's Compensation Bill, recommending that the amount now allowed for medical and hospital expense be increased if possible.

The amendment being seconded, the same was discussed by Doctors Bellinger, Cole, Woods, Herrick, Armentrout, Bendixen, Eiker, Fay, Sproule, after which it was put and carried.

The amendment to the motion, as put by Dr. John F. Herrick relative to the endorsement of this committee and its work by the House of Delegates, was then put and unanimously carried.

The original motion as put by Doctor Burcham that the report of the committee be received and placed on file, was then placed before the House and carried.

Dr. Samuel T. Gray, Albia, moved that the Basic Science Law be endorsed by this House of Delegates; seconded and carried.

Dr. Oliver J. Fay, Des Moines, moved that the suggestions and recommendations of Dr. Henry Albert, as presented in the report of the Public Policy and Legislation Committee be endorsed by this body. Seconded and carried.

A motion was then made by Dr. Oliver J. Fay, that it be the sense of this House of Delegates to endorse the principles of legislation relative to the Eugenics Law, as was proposed at the last session of the legislature, with the addition that some provision be made for compensating the medical profession for any service it might be called upon to render in the carrying out of such an act. Seconded.

After discussion by Doctors Gray and Herrick, Dr. Vernon L. Treynor, Council Bluffs, moved that the motion be laid on the table. Seconded and carried.

An appeal was made from the decision of the Chair and a rising vote asked for. The vote being taken, it was found that the majority of the House was in favor of the motion and the same was duly tabled.

REPORT OF THE COMMITTEE ON CONSTITUTION AND BY-LAWS

The report of the Committee on Constitution and By-Laws being called for, Dr. Vernon L. Treynor, Chairman, stated that the committee had nothing to report at this time.

The report of the Publication Committee was presented by Dr. D. S. Fairchild, Editor and Chairman, who also incorporated his report concerning the Medical Library, which, upon motion duly seconded and carried, was received and placed on file.

REPORT OF THE COMMITTEE ON PUBLICATION

The Report on Journal and Medical Library being more or less closely associated, are joined. Inasmuch as the finances of the Journal are cared for by the Board of Trustees, the Editor refers to the general Financial Report.

The Journal has published 77 original papers during the year ending with April, 1928, and has prepared 56 obituary notices.

We have mailed to the State Medical Library about 84 volumes of books and Journals, bound and unbound, during the year ending with April 1, 1928.

I am attaching special report on Library.

Respectfully submitted,
D. S. Fairchild,
Editor.

STATE MEDICAL LIBRARY

Yearly appropriation for maintenance..... \$2,000.00

Approximate Expenses

Amount necessary yearly for journal subscriptions\$980.00
Amount specified for traveling expenses..... 500.00
Amount necessary yearly for binding and printing 500.00
(Binding has been slighted heretofore because of insufficient funds)
Amount necessary for miscellaneous office expense 20.00

\$2,000.00

BALANCE TO BE USED FOR PURCHASE OF BOOKS..... ?

Yearly appropriation for maintenance of Law Library--- \$6,000.00
Yearly appropriation for maintenance of Library of Economics and Sociology..... 1,000.00

Medical Library Statistics

Number of bound volumes in the library..... 8,000
Number of journals regularly received in 1924..... 158
Number of journals regularly received in 1927..... 138
(Subscriptions dropped because of shortage of funds)
Number of calls for literature in 1923..... 1,670
Number of calls for literature in 1927..... 3,298
Number of calls for literature January 1, 1928 to May 1, 1928 1,235
Pieces of literature loaned in 1923..... 3,176
Pieces of literature loaned in 1927..... 10,037
Pieces of literature loaned January 1, 1928 to May 1, 1928 3,896
(Amount of literature loaned in 4 months of 1928 exceeds entire year 1923)
Number of visitors at the library in 1923..... 1,118
Number of visitors at the library in 1927..... 1,482
(Number of people calling at the library has not materially increased in four years. This shows that the extensive growth has developed through the increasing use made of the library by the physicians throughout the state rather than by local physicians.)

REPORT OF THE FINANCE COMMITTEE

Report of the Finance Committee was made by Chairman, Dr. E. C. McClure, Bussey. Dr. McClure in his report stated that since the Trustees had seen fit to have the books of the Secretary and Treasurer audited by a certified public accountant the work of the committee was purely one of acquiescence, in that the committee was perfectly satisfied with the reports as presented by the Secretary and Treasurer, and moved the acceptance of the accountant's report. Seconded and carried.

There being no report made by the Committee on Arrangements or Military Affairs, the report of the Special Committee on Hospitals was read by Secretary Throckmorton, in the absence of the Chairman of the Committee, Dr. Walter L. Bierring.

REPORT OF THE COMMITTEE ON HOSPITALS

Your Committee on Hospitals begs to report that during the year since the last annual session the following hospitals have been examined and approved:

1. Burlington Hospital, Burlington, Iowa.
2. Mercy Hospital, Council Bluffs, Iowa.

Both hospitals were found to fulfill the standard requirements of hospital service, and were recommended to the Council on Medical Education and Hospitals of the American Medical Association to be placed on the credited list of hospitals for interne service. This recommendation was approved by the above Council and both hospitals have been notified of the same.

Respectfully submitted,
Walter L. Bierring,
Frank E. Sampson,
Fred M. Smith,
Committee,

Secretary Throckmorton moved the acceptance of the report, which, being duly seconded and carried, was placed on file.

MEMORIALS AND COMMUNICATIONS

Under the head of Memorials and Communications, the Secretary then read a telegram received from William C. Woodward, legal representative of the American Medical Association, in reference to the proposed increase in the Harrison Narcotic Tax from one to three dollars, and the unfavorable report against traveling expense deduction of physicians from their income tax, pending before Congress. A joint telegram from the Secretary, Chairman Board of Trustees, and Chairman Legislation Committee, protesting against increased narcotic tax, and favoring the deduction of traveling expenses by physicians in attendance of medical societies, was then read, and the statement made that a copy of the same was sent to United States Senators Brookhart and Steck, and each Congressman. Several letters received in reply to the protest, from the senators and congressmen, were then read, expressing satisfaction on the part of the recipients in receiving some word as to the position which the representatives of the Society took in regard to the proposed legislative changes, and signified their willingness to cooperate.

Dr. Eugene Wolcott, Des Moines, at the request of Dr. D. S. Fairchild, Chairman of the Medical Library Committee, then presented a supplementary report concerning the work of the State Medical Library.

Dr. Channing Smith, Granger, moved that every effort be made to secure an increase in the budget for the upkeep of the Medical Library, to the sum of \$4,000. Seconded.

After some discussion by Doctors Quire, Fairchild, Wolcott, Gray, Powers and Evans, the motion was put and carried.

NEW BUSINESS

Dr. Joseph H. Schrup, Dubuque, presented a resolution from the Dubuque County Medical Society, dealing with a matter of an ethical nature, which, under the by-laws, was referred to the Council without discussion, the resolution being given to the Chairman of the Council, Dr. Channing G. Smith.

There being no further business to come before the House, the same was adjourned at 10:45 a. m.

Third Meeting, Friday, A. M., May 11

The House of Delegates met in the Roosevelt Room, Roosevelt Hotel, and was called to order by President Kenefick, at 8:15 a. m.

Roll call showed the presence of 15 officers, and 33 delegates, making a total of 48.

The President announcing that a quorum was present, the House then proceeded to the transaction of business.

The minutes of the first meeting of the House were then read by the Secretary, and, after a minor correction, the Chair stated that the minutes would stand approved as corrected.

The minutes of the second meeting were then read by the Secretary and there being no corrections or objections, the Chair stated the minutes would stand approved as read.

The report of the Committee on Nominations being the first order of business, Dr. W. E. Long, Mason City, Chairman, presented the report as follows:

REPORT OF THE COMMITTEE ON NOMINATIONS

For the office of President-Elect—Dr. John H. Peck, Des Moines; Dr. Bert L. Eiker, Leon; Dr. Paul Gardner, New Hampton.

For First Vice-President—Dr. Pearl E. Somers, Grinnell.

For Second Vice-President—Dr. A. V. Hennessey, Council Bluffs.

For member Board of Trustees to succeed himself—Dr. Oliver J. Fay, Des Moines.

For Delegates to A. M. A. for two-year term—Dr. Donald Macrae, Jr., Council Bluffs; Dr. Bert L. Eiker, Leon.

For Alternates to A. M. A. for two-year term—Dr. Thomas A. Burcham, Des Moines; Dr. John F. Herrick, Ottumwa.

Standing Committees

For member of Medico-Legal Committee, Dr. Henry B. Jennings, Council Bluffs, to succeed himself.

For Public Policy and Legislation Committee, to succeed themselves, Dr. Thomas A. Burcham, Des Moines; Dr. W. Eugene Wolcott, Des Moines, and Dr. Peter A. Bendixen, Davenport.

For members of the Constitution and By-Laws Committee, to succeed themselves, Dr. Vernon L. Treynor, Council Bluffs; Dr. Charles B. Taylor, Ottumwa, and Dr. Tom B. Throckmorton, Des Moines.

For members of the Finance Committee, to succeed themselves, Dr. Ernest C. McClure, Bussey; Dr. Daniel F. Houston, Burlington; Dr. Charles Ellyson, Waterloo.

The Committee endorses the continuance of the Special Committees—Medical Library, Military Affairs, and Hospital, and suggests that Dr. Fred M.

Smith, Iowa City, succeed himself as a member of the Hospital Committee.

The Committee further recommends that Des Moines be made the meeting place of the next Annual Session, to be held May 8, 9 and 10, 1929.

Respectfully submitted,

W. E. Long,
Chairman.

ELECTION OF OFFICERS

The House then proceeded to an election.

The President appointed Dr. Alexander McKinley, Des Moines, and Dr. Paul Gardner, New Hampton, as tellers.

Dr. Bert L. Eiker, requested of the Chair the privilege of a personal communication and there being no objection, the same was granted. Dr. Eiker stated that since his name was one of those nominated for the office of President-Elect, he desired at this time to ask the privilege of voluntarily withdrawing his name for what he considered to be for the best interest of the Society.

The President stated that while he appreciated Dr. Eiker's good will toward the Society, still it was mandatory that the three names be presented for ballot for the office of President-Elect.

The ballot was then taken for the office of President-Elect. A ballot of 46 votes was cast, of which Dr. John H. Peck, Des Moines, receiving 28, the Chair declared him elected to the office of President-Elect.

Dr. Paul Gardner, New Hampton, moved that the election of Dr. Peck for President-Elect, be made unanimous. Seconded and unanimously carried.

Dr. John F. Herrick, Ottumwa, moved that, as there was but one candidate for the other offices and committees, the rules be suspended and the Secretary instructed to cast the ballot for the remaining officers and committee members, as reported by the Nominating Committee. Seconded and carried.

The Secretary then cast the ballot and the Chair declared the remaining officers and committee members duly elected.

Dr. Tom B. Throckmorton, Secretary, moved that the recommendation of the Nominating Committee regarding Des Moines, as the next meeting place, to be held May 8, 9 and 10, 1929, be accepted. Seconded and carried.

NEW BUSINESS

Dr. Channing G. Smith, Granger, moved that inasmuch as Dr. Giles C. Moorehead, Ida Grove, Councilor of the Eleventh District, was unable to attend this session of the State Society, the Secretary be instructed to send a telegram expressing the regrets of the House over Dr. Moorehead's absence, and conveying a message of good will and best wishes. Seconded and carried.

The Secretary then announced that so far he had received no communication from the delegates of the Fifth and Sixth Districts relative to their choice of Councilors for the coming term of office.

Dr. Samuel T. Gray, Albia, reported that he had been selected to succeed himself as Councilor in the Sixth District, and Dr. George E. Crawford, Cedar Rapids, reported that he likewise had been selected to succeed himself as Councilor of the Fifth District.

The Secretary then stated that inasmuch as Governor Hammill had usually requested the Society to recommend a member for appointment on the Board of Medical Examiners, and inasmuch as he understood that the term of Dr. Frank M. Fuller had expired, or was about to expire, that the House of Delegates recommend to the Governor the re-appointment of Dr. Fuller to this important position of trust. Seconded.

Dr. Thomas A. Burcham, Des Moines, rose to a point of information and asked if it was not mandatory, according to state law, that five names be submitted instead of but one. Secretary Throckmorton stated that in the past in the re-appointment of members to this important state committee it had been customary to ask for the reappointment of the member whose term had expired, after which Doctor Burcham moved that if it was mandatory for more than the one name to be submitted to the Governor, that the selection of the names other than that of Dr. Frank M. Fuller, be left to the Board of Trustees. Seconded and carried.

The Secretary then stated that telegrams from the State Medical Societies of Texas, Kansas and Mississippi, were received in response to those sent by the House of Delegates at its first meeting, all of which thanked the State Society for its thoughtfulness in remembering her Sister State Associations and expressed heartiest greetings and best wishes for a successful session.

There being no further business to come before the House of Delegates, upon motion by the Secretary the same was adjourned sine die, at 9:05 a. m.

Respectfully submitted,

Tom B. Throckmorton,
Secretary.

IOWA STATE MEDICAL SOCIETY OFFICERS AND COMMITTEES 1928-1929

President.....	Thomas U. McManus, Waterloo
President-Elect.....	John H. Peck, Des Moines
First Vice-President.....	Pearl E. Somers, Grinnell
Second Vice-President.....	Albert V. W. Hennessy, Council Bluffs
Secretary.....	Tom B. Throckmorton, Des Moines
Treasurer.....	Robert L. Parker, Des Moines

COUNCILORS

Term expires

First District—George B. Crow, Burlington.....	1930
Second District—Anthony P. Donohoe, Davenport.....	1932
Third District—Fred F. Agnew, Independence.....	1931
Fourth District—Paul E. Gardner, New Hampton.....	1929
Fifth District—George E. Crawford, Cedar Rapids.....	1933
Sixth District—Samuel T. Gray, Albia, Secretary.....	1933
Seventh District—Channing G. Smith, Granger, Chairman.....	1929
Eighth District—Fred A. Bowman, Leon.....	1929
Ninth District—Henry B. Jennings, Council Bluffs.....	1932
Tenth District—Watson W. Beam, Rolfe.....	1931
Eleventh District—Giles C. Moorhead, Ida Grove.....	1930

TRUSTEES	
Oliver J. Fay, Des Moines, Chairman.....	1931
Vernon L. Treynor, Council Bluffs.....	1930
John F. Herrick, Ottumwa.....	1929
DELEGATES TO A. M. A.	
William Jepson, Sioux City.....	1929
Thomas F. Thornton, Waterloo.....	1929
Donald Macrae, Jr., Council Bluffs.....	1930
Bert L. Eiker, Leon.....	1930
ALTERNATE DELEGATES TO A. M. A.	
Fred Moore, Des Moines.....	1929
Clyde A. Boice, Washington.....	1929
Thomas A. Burcham, Des Moines.....	1930
John F. Herrick, Ottumwa.....	1930
STANDING COMMITTEES	
MEDICO-LEGAL	
Frank A. Ely, Des Moines, Chairman.....	1929
George C. Albright, Iowa City.....	1930
Henry B. Jennings, Council Bluffs.....	1931
SCIENTIFIC WORK	
Thomas U. McManus.....	Waterloo
Tom B. Throckmorton.....	Des Moines
Robert L. Parker.....	Des Moines
PUBLIC POLICY AND LEGISLATION	
Thomas A. Burcham, Chairman.....	Des Moines
W. Eugene Wolcott.....	Des Moines
Peter A. Bendixen.....	Davenport
Thomas U. McManus, Ex-Officio.....	Waterloo
Tom B. Throckmorton, Ex-Officio.....	Des Moines
CONSTITUTION AND BY-LAWS	
Vernon L. Treynor, Chairman.....	Council Bluffs
Charles B. Taylor.....	Ottumwa
Tom B. Throckmorton.....	Des Moines
PUBLICATION COMMITTEE	
David S. Fairchild, Sr., Editor Emeritus.....	Clinton
Ralph R. Simmons, Editor.....	Des Moines
Tom B. Throckmorton, Secretary.....	Des Moines
Oliver J. Fay, Trustee.....	Des Moines
Vernon L. Treynor, Trustee.....	Council Bluffs
John F. Herrick, Trustee.....	Ottumwa
FINANCE	
Ernest C. McClure, Chairman.....	Bussey
Daniel F. Houston.....	Burlington
Charles Ellyson.....	Waterloo
ARRANGEMENTS	
Thomas U. McManus.....	Waterloo
Tom B. Throckmorton.....	Des Moines
Robert L. Parker.....	Des Moines
Two members from Polk County Medical Society	
SPECIAL COMMITTEES	
MEDICAL LIBRARY	
David S. Fairchild, Sr., Chairman.....	Clinton
Conrad R. Harken.....	Osceola
Felix A. Hennessy.....	Calmar
MILITARY AFFAIRS	
Donald Macrae, Jr., Chairman.....	Council Bluffs
Harold A. Spilman.....	Ottumwa
Earl B. Bush.....	Ames
HOSPITAL COMMITTEE	
Walter L. Bierring, Des Moines, Chairman.....	1929
Frank E. Sampson, Creston.....	1930
Fred M. Smith, Iowa City.....	1931

SOCIETY PROCEEDINGS

Polk County Medical Society

The Polk County Medical Society met for its regular monthly meeting at the Fort Des Moines Hotel, May 29, 1928. The meeting was called to order at 7:30 p. m. by the president, Dr. R. H. Parker.

The minutes of the previous meeting were read and approved.

The following men who were candidates for office at the primaries gave short talks: Dr. Park Findley for sheriff, Dr. Fieke for representative, Dr. Carpenter for coroner, and Dr. Osborne spoke for Dr. Wright for coroner.

Dr. C. E. Ruth presented a case report of a man dying from a ruptured pulmonary artery and also a case report of a tumor of the brain, showing the brain involved.

Program

Epidermophytosis—George McCreight, M.D.

Routine Examination of the Prostate, as a Focus of Infection—L. A. West, M.D.

Dr. James F. Cooper, medical director of the research department of the American Birth Control League of New York City, gave an interesting talk on the result of four years of research work in birth control.

The applications of Dr. R. J. Stephen, Dr. Mae Hall Habenicht and Dr. Albert E. Johann were presented to the society having been passed upon favorably by the board of censors. It was moved that the by-laws be suspended and that they be unanimously elected to membership. Duly seconded and carried.

Members present, 68; visitors, 8. Total 76.

L. K. Meredith,
Secretary-Treasurer.

Blackhawk County Medical Society

At a joint meeting of the Waterloo Medical Society, the Cedar Falls Medical Society and the Blackhawk County Medical Society and invited guests, Dr. Houghton, dean of the University of Iowa Medical School, said in part that, "A medical act providing for free treatment of Iowa's worthy poor is inseparable for the conduct of the medical college of this state and the act must produce an extent and variety of clinical material at least equal to that which has been produced heretofore".

Boone-Story County Medical Societies

The regular meeting of the Boone-Story County Medical Societies was held on June 7, 1928. Dinner was served to twenty-seven members at 6:00 o'clock, after which the program by members of the Story County Society was given. Dr. H. Haerem, president of the Story County Society gave a very instructive talk on the subject of Blood-Pressure and displayed an instrument which was used when this method was first used in the determination of hypertension.

Dr. Johns gave a report of cases of Influenza during the present year at Iowa State College Hospital.

Dr. Dyer of Ames gave a paper on Vision.

This meeting was held at Hotel Holst in Boone and on motion of Dr. Connor of Nevada, seconded by Dr. Whitehill of Boone, it was decided to continue the meetings beginning with the September meeting.

Mark C. Jones,
Sec'y Boone County Med. Society.

Cerro Gordo County Medical Society

The meeting of the Cerro Gordo County Medical Society was held May 15 at 7:00 p. m. The society was the guest of the Clear Lake physicians, consisting of Drs. A. B. Phillips, N. W. Phillips, E. Mustzer, A. Cole, C. E. Wright, Jane Wright, and J. C. Wright.

The society enjoyed a fine fish dinner at the Lions' Cafe. The program consisted of a talk by Doctor Plass, professor of obstetrics and gynecology at Iowa City on Common Post Partum Complications.

The minutes were read, approved, and the meeting adjourned.

Dallas-Guthrie County Medical Society

The Dallas-Guthrie County Medical Society met at Panora, April 19. Drs. John Peck and Merrill M. Myers held a chest and heart clinic.

Des Moines County Medical Society

Dr. Alcock, of the State University of Iowa, addressed the Des Moines County Medical Society at the Hotel Burlington, Burlington, April 19.

Marion County Medical Society

A successful chest and heart clinic was held under the auspices of the Marion County Medical Society, April 13, by Dr. John Peck and Dr. Merrill M. Myers of Des Moines, at Knoxville. Among those present was Dr. Channing G. Smith, Councilor of the Seventh District.

Woodbury County Medical Society

The regular May meeting of the Woodbury County Medical Society was held at the Christian church, Onawa, Iowa, Tuesday, May 22, 1928, as guests of the Monona County Society. Thirty-two members of Woodbury Society, 10 members Monona Society present.

Meeting called to order by Dr. Junger, president of Monona Society.

No business transacted.

Dr. Johnson of Council Bluffs gave a very interesting discourse on skin tumors and the medical phase of thyroid disease. Discussion by Dr. Larimer.

Dr. Donald Macre of Council Bluffs discussed the surgical side of thyroid disease and showed a specimen of ruptured interstitial tubal pregnancy.

Discussed by Dr. P. B. McLaughlin and Dr. Reeder.

Dr. Werndorff of Council Bluffs read a treatise on spinal pathology.

Meeting adjourned.

Dr. Roscoe Jepson, Sec'y.

Des Moines Valley Medical Association

The fifty-fifth annual meeting of the Des Moines Valley Medical Association was held at Ottumwa, Iowa, Tuesday, June 19, 1928, with the following program:

Morning Session—Ottumwa Hospital

9:30—Business session.

10:00—X-Ray Diagnosis of Gastric and Duodenal Disease—A. W. Erskine, M.D., Cedar Rapids.

11:00—Medical Treatment of Gastric Ulcer—James G. Carr, M.D., Associate Professor of Medicine, Northwestern University Medical School, Chicago.

12:30—Luncheon at Ottumwa Country Club.

Afternoon Session—St. Joseph Hospital

2:00—The Pathology of Gastric Ulcer and its Clinical Significance—Wm. Carpenter MacCarty, M.D., Mayo Clinic, Rochester, Minnesota.

3:00—Surgical Aspect of Diseases of the Stomach—Donald C. Balfour, M.D., Mayo Clinic, Rochester, Minnesota.

All physicians in accord with the ethics of the American Medical Association are invited to meet with us and if not members, join the Association. The membership fees, two dollars, are payable at time of registration and due only when in attendance.

Officers—President, Dr. H. C. Young, Bloomfield; first vice-president, Dr. K. L. Johnson, Oskaloosa; second vice-president, Dr. W. C. Newell, Ottumwa; secretary-treasurer, Dr. H. A. Spilman, Ottumwa. Board of censors—Dr. Wm. Sterlin, Delta; Dr. Leo Rater, Ottumwa; Dr. J. C. Keller, Kirkville.

State Society Iowa Medical Women

The following officers were elected for the ensuing year by the Iowa State Medical Women at their annual meeting held at Cedar Rapids, Iowa, May 8th last: President, Mae Habenicht, M.D., Des Moines; vice-president, Jean Jongewaard, M.D., Ames; secretary, Rose Butterfield, M.D., Indianola; treasurer, Florence Johnston, M.D., Cedar Rapids.

LUTHERAN HOSPITAL IN CEDAR RAPIDS

It is reported that on June 1st the new Lutheran Hospital, located in West Cedar Rapids, was opened. This hospital has a capacity of thirty-five beds. The policy is an open staff, granting to any member of Linn County Medical Society the privilege of the hospital.

The officers of the staff are: Dr. Lynn Crawford, president; Dr. Fred W. Bailey, vice-president; Dr. B. L. Knight, secretary and treasurer; Dr. A. F. Sallach, superintendent.

DR. FRANK C. TITZELL IS CANDIDATE FOR CONGRESSMAN

For congressman from the second district of Iowa Dr. Frank C. Titzell of Iowa City received the unanimous endorsement of the democratic caucus of the second district in Des Moines last May. Nomination papers have been filed and his name will appear on the ticket at the primaries in June although so far as is known he will have no opposition at that time. He will undoubtedly be the candidate against the present incumbent of that office at the November election.

Dr. Titzell was born at Ottawa, Illinois, where he lived on a farm until he was of age. He graduated from the Ottawa high school and later took up the study of medicine graduating in that in 1889.

In 1906 he was given a call to the University of Iowa to succeed Dr. J. G. Gilchrist on the chair of surgery in the College of Medicine where he remained for thirteen years. He is also a graduate of the law college of the University of Iowa and a member of the bar of this state.

PERSONAL MENTION

Dr. William Middleton of Davenport has been appointed physician for Scott county.

Dr. W. B. Armstrong, a graduate of the Medical School of the Iowa State University, has located in Ames.

Dr. Mae Habenicht of Des Moines, was elected president of the State Society of Iowa Women. Dr. Jean Jongewaard of Ames, vice-president. Dr. Rose Butterfield, Indianola, secretary, and Dr. Florence Johnston, Cedar Rapids, treasurer.

Dr. L. E. Fellows, a graduate of the Medical College of Michigan, has become associated with Dr. R. W. Wood of Newton in the practice of medicine.

Dr. Oliver J. Fay, the distinguished Des Moines surgeon, has been elected president of the Des Moines Club. It is gratifying to know that one so busy in his own affairs as Dr. Fay, finds time for public service.

Surgeon W. C. Rucker of the United States Public Health Service, directed to proceed from New Orleans, Louisiana, to Washington, D. C., and return, at such time as will not interfere with official duties, for conference with surgeon general and supervising architect relative to plans for a new marine hospital at New Orleans.

OBITUARY

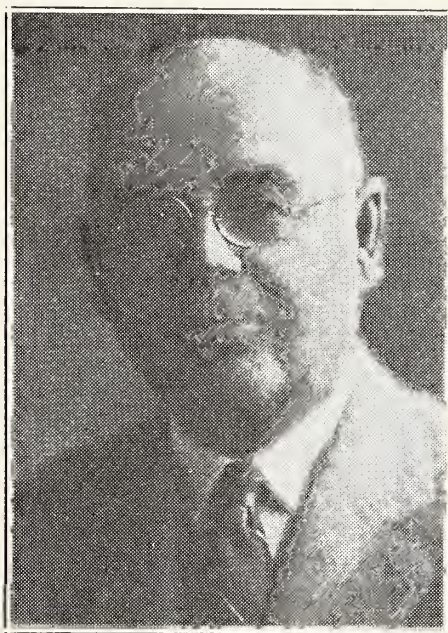
Obituary of Doctor Henry A. Powers

By Harold L. Brereton, M.D.

Dr. H. A. Powers who died at Rochester, Minnesota, on May 14, 1928, following a prostatectomy, was born in Dubuque, Iowa, on March 15, 1856. At

the time of his death he was seventy-two years of age.

Dr. Henry A. Powers was a son of P. H. and Catherine (Harrison) Powers. He was reared on the home farm in Buchanan county. He attended the rural schools there and later graduated from the high school at Jessup. For four years he taught school during the winter months, and then was employed in the State Hospital at Independence. While there he studied medicine and in the fall of 1879 he



DR. HENRY A. POWERS

entered the State University and began his regular studies in the medical department from which he graduated in 1882 with the degree of Doctor of Medicine.

The same year he came to Emmetsburg and engaged in the practice of medicine and continued his practice here for forty-six years, up to the time of his death.

In the year 1885 he united in marriage with Miss Anna Roberts of this city. Mrs. Powers died in 1895.

In 1898 Dr. Powers was married to Miss Catherine Lambert of Jackson county and at the time a teacher in the public schools here.

Few men were better known, or better beloved in Palo Alto county than Dr. Powers. For nearly half a century he gave his time and energy to visiting the homes and caring for those who were ill and desired his service.

He was a soul of sympathy and his presence in a sick room gave courage to his patient and comfort to the family. He was a professional gentleman in the true sense of the term. Learned in his profession, kind in manner, thoughtful in the smallest details which meant comfort or cheer to those whom he served, he became as a member of the family and inspired the utmost confidence. He was never

known to speak ill of another of his profession. He found plenty to do to keep his time fully occupied and was too broadminded, too generous and too charitable to entertain ill will or unkind thoughts or feelings.

He put his whole mind and whole heart into his work as a physician and surgeon. His profession was his life and living, and to him it was a divine call to duty. He will be missed in many a home in Palo Alto county, where he had served, and where his service meant all to these homes.

Dr. Powers was a manly man, always courteous and gentlemanly. His was an ideal citizenship. He was truly patriotic, in local, state or national affairs. His ideals were high and by precept and example, he aided in making a better community life. He became a Free Mason in 1878 and was a member of Earnest Lodge, No. 399, A. F. and A. M., also a member of the Eastern Star, Esther Chapter No. 111.

He was a member of the Palo Alto County and Iowa State Medical Societies as well as of the American Medical Association. In educational and civic affairs he did his part. He was a member of the board of education in Emmetsburg from 1895 to 1911, serving as president for four years of this time from 1902 to 1905 inclusive. He served as examining physician for the draft board during the World War.

In his professional life, in his civic, social, religious and educational relations he did well his part, but nowhere was his influence for good, his kindly manner, his generosity of soul, his earnestness of purpose, his warm hearted, whole souled fatherliness felt to the same degree as in his home, toward his wife and family.

He was a husband and father far above the average in fulfilling every duty to the minutest detail.

He provided one of the best homes in the city for his family. He gave his children the very best possible educational advantages and was blessed with the privilege of seeing them all equipped for the positions they sought in life. His daughter is married happily and is a splendid housewife and home-maker. His two sons are physicians and surgeons. The elder, Dr. Robert, has been associated with his father in the medical profession for several years, the younger, Harold Wayne, has completed his medical course and is now an interne in the Cincinnati General Hospital.

Besides his wife and children, Dr. Powers is survived by one brother, James Powers, two sisters, Misses Ella and Etta Powers, of Glendale, California, and one sister, Mrs. Margaret Strong of Lake City, Iowa.

At a recent meeting of the Palo Alto County Medical Society the following resolutions were adopted:

**Resolutions by Palo Alto County Medical Society
Concerning the Death of Dr. H. A. Powers**

Whereas, In the providence of God, Dr. H. A. Powers who practiced our profession in our county for more than four full decades, and was an honorable and helpful member of this society from its be-

ginnings, has been called from the scenes of earth, we his professional brothers, and members with him of the Palo Alto County Medical Society, desire to put on record our estimate of him, and in doing so try to comfort the wounded hearts of his wife and children. Therefore be it,

Resolved: That Dr. H. A. Powers in his long and successful practice of medicine in Emmetsburg, and the regions about, brought distinguished honor to his profession. First of all he was a fine human spirit. His personality dispelled gloom. Cheer which many times is better than any medicine was his rare possession, and always given in countless chambers of the sick. He was a man of real integrity. His promises were golden. He was a choice home builder, and a lover of his country. No institution that makes for the common weal ever suffered for want of his sympathy or of his helping hand. He was a lover of his calling. He loved to relieve pain. He was willing to make a sacrifice for sick folk. In his pioneer days he made many a night journey when the weather was biting cold and the storm was driving fiercely. He studied to keep abreast in medicine. It was thus that he kept on to a ripe age, doing the tasks of his profession well to the close of his life. We cherish his memory.

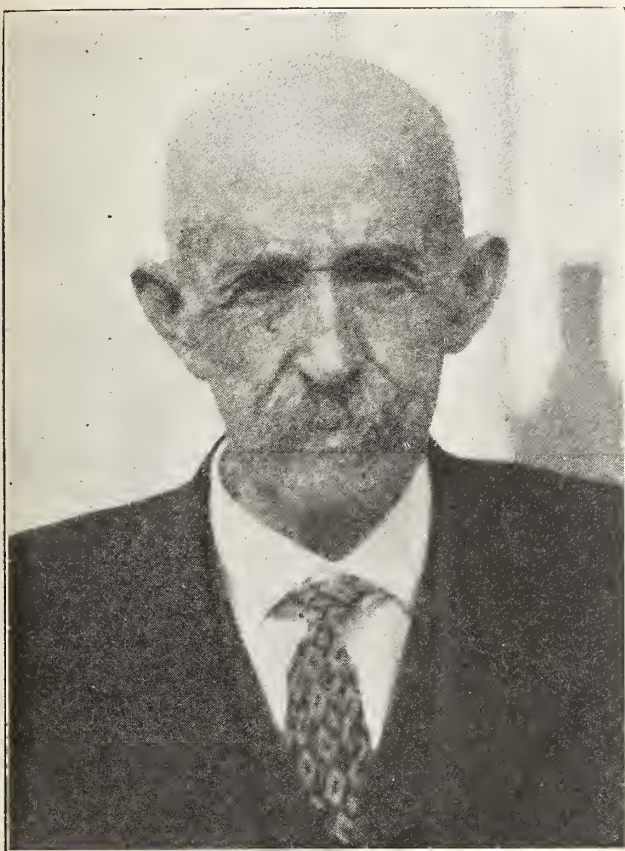
Resolved: That these resolutions be spread on the records of our society, be sent to the Journal of the Iowa State Medical Society, and local newspapers, and that copies be sent to members of his household.

Dr. Winfield Fordyce of Fairfield died at his home April 16, 1928, at the age of eighty years. The death of Dr. Fordyce removes one of the last of what is called the "old school of medical practitioners in Iowa". What is meant is, that he lived beyond the usual limits, not that he belonged to an earlier generation or of the past, but lived in the present and saw the passing of at least two generations of active practitioners.

Dr. Fordyce was born February 10, 1848, in Green Bay, Lee county, Iowa; the son of Rev. Lewis Fordyce. When only a child the family moved to a farm near Birmingham, Van Buren county, where he received his early education. As was the custom in those days, he entered the office of a preceptor, Dr. J. M. Morris of Birmingham, as a student. After attending one course of medical lectures at Keokuk, then the medical department of the State University, he opened an office on his own account in 1872 at Glasgow in the southeastern part of the county. Three years later he graduated in the class of 1875 at Keokuk. Dr. Fordyce continued to practice in Glasgow until 1887, when he moved to Fairfield, where he practiced up to the time of his death.

On December 19, 1876, Dr. Fordyce was married to Miss Mariam Fell, who, with one son, Dr. Chester Fordyce of Fairfield, survive him.

Dr. Fordyce was one of the founders of the Jefferson County Medical Society. If we were to measure the medical training of Dr. Fordyce by the present



DR. WINFIELD FORDYCE

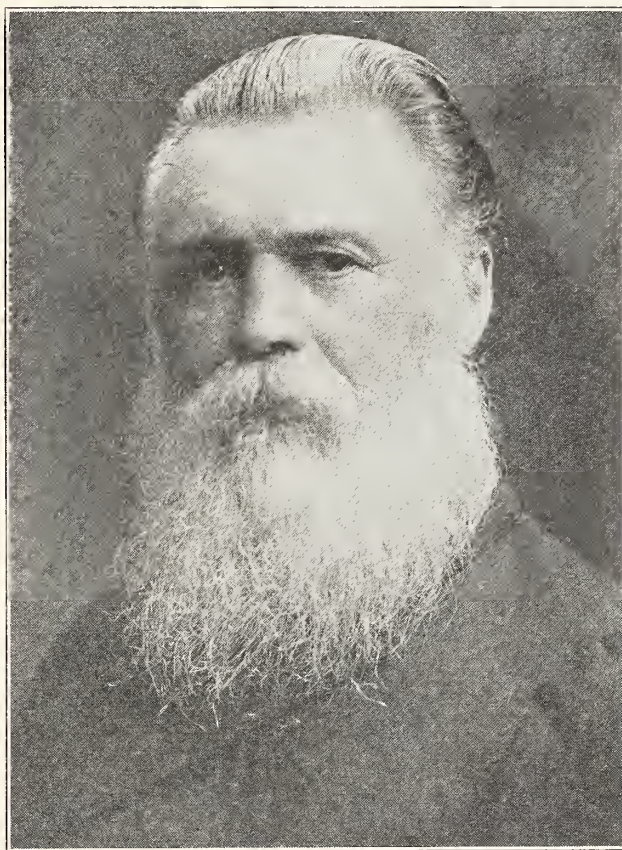
standards of medical education, or of Dr. Darnell, whose obituary we are publishing, and consider the success which attended their efforts, we shall find food for thought.

Dr. G. D. Darnell died at West Union, April 17, 1928, at the age of eighty-five years. He had been ill just a week, continuing his practice up until Tuesday, April 10, when exposure in visiting patients led to a fatal sickness, which, in his advanced age, he could not resist.

Dr. Darnell at the time of his death was probably the oldest practicing physician in Iowa. He began the practice of medicine at Cherry Point, Illinois, in 1866, where he remained until 1867, when he moved to Solon, Iowa, to Pomeroy, and to West Union in 1872, where he practiced until the time of his death, a period of fifty-six years.

Dr. Darnell was born on a farm in southern Illinois near the Kentucky line, May 28, 1843. Received his preliminary education in a subscription school and his medical degree from Rush Medical College, Chicago, in 1882, and became a member of the Iowa State Medical Society in 1883. The opportunities for securing a liberal education in Dr. Darnell's earlier days were limited, but the energy of a well endowed brain was sufficient to overcome the educational handicap and he became one of the most respected and successful practitioners in his section of the state. Dr. Darnell became identified with every im-

portant activity of West Union and a leader in all. He was interested in business affairs, in which he was unusually successful, having acquired a large property. He also took an active interest in politics, served in the legislature and as chairman of the West Union School Board. He was a member of the various Masonic bodies, to the De Molay Con-



DR. G. D. DARNELL

sistory, Clinton. He had served at various times as secretary and president of the Fayette County Medical Society.

Dr. Darnell was twice married. His second married was to Mrs. Cora Lawyer, a sister of his first wife, who survives him.

Dr. Roy J. Crary died at the Iowa University Hospital, May 31, 1928. Dr. Crary was assistant professor in the department of urology the College of Medicine. He was born at Rodney, Iowa, August 31, 1875. In 1915 he entered the University and two years later enlisted in the army and was assigned to the aviation service at Kelley Field. After his honorable discharge in 1918 he returned to the University and began the study of medicine and graduated in 1923. Since that time he served as assistant to Dr. N. G. Alcock. Dr. Crary was a popular student in the University and a successful teacher.

In 1925 Dr. Crary married Miss Ruth H. Kelley of Sigourney, who, with a young son, survive him.

Dr. Charles Marion Hamilton of Thornburg, Keokuk county, died April 24, 1928, at the age of seventy-one years.

Dr. Hamilton was born in Ogle county, Illinois, July 17, 1857. He received his degree in medicine from the College of Physicians and Surgeons, Keokuk, in 1881, and began practice at What Cheer. Two years later he moved to Thornburg, where he practiced more than forty-five years. On December 28, 1881, he married Althea C. Sherriff. Dr. Hamilton was a successful and much esteemed practitioner.

Dr. George J. Mack of Waterloo, died at his home May 10, 1928, at the age of seventy-seven years, fifty-five years in Waterloo.

Dr. Mack was born in Romeo, Michigan, October 7, 1850. When still a young man he came to his uncle, Dr. A. Middleditch, in Waterloo. Attended the West High School. He graduated from Bellevue Hospital Medical School in New York in 1872 and on the completing of his course, entered into partnership with Dr. Middleditch. After some years of general practice, Dr. Mack specialized in diseases of the ear, eye, nose and throat.

Dr. Mack married Miss Lillian A. Kimball of Monticello, Iowa, who survives him.

Dr. W. H. Daley, who recently died in Chicago, was born at Nashua, Iowa, August 24, 1874; graduated from the Medical School of the Iowa State University, and began practice in Chicago.

Dr. Lou A. Todd, formerly of Springdale, Iowa, died at the home of her son at Elkhart, Indiana. For many years she practiced medicine in Springdale. About a year ago on account of failing health, she retired from active practice and with her son moved to Elkhart.

BOOK REVIEWS

INTERNATIONAL CLINICS

A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery and Allied Branches. Edited by Henry W. Cattell, M.D., Philadelphia, and C. H. Mayo, M.D., Rochester, Minnesota. J. B. Lippincott Company, 1927.

We generally find in the International Clinics something particularly interesting and out of the general line of periodical literature. First we find a paper on the Passing of Disease from One Generation to Another and the Processes Tending to Counteract It, by Theobald Smith, M.D. This is a lecture delivered before the Pathological Society of Philadelphia by Dr. Smith as the annual Samuel D. Grass lecture. Dr. Smith lays as the foundation of his address the investigations of Pasteur in his studies on silkworm disease in France.

The second appears under the head of Post-Graduate Studies, including a Medical Questionnaire by the editor, Dr. H. W. Cattell. The question: Are the medical schools of the United States able properly to handle the large number of students applying for admission? This question is answered by Dr. N. P. Colwell, secretary of the Council on Medical Education and Hospitals of the American Medical Association. No one is better fitted than Dr. Colwell to answer this question.

Dr. Colwell shows that notwithstanding the increased cost and time required to secure a medical education, the number of students and graduates are increasing; that it requires longer time and more thorough training to carry on a modern practice safely than twenty-five years ago; there is no shortage of physicians, but there is an increasing tendency for doctors to locate in cities and a less tendency to locate in small villages; that the difficulty is one of distribution and not absolute shortage. It is on these conditions that Dr. Colwell's argument is based. The argument is very interesting, and from his viewpoint, perfectly correct. But there are economic problems more difficult to solve than the educational problems.

A questionnaire on syphilis is submitted to Dr. Kolmer, who considers the subject in an interesting and instructive manner.

These questionnaires are promised as a permanent feature and will be found of great interest to the medical profession.

A TEXT-BOOK OF THERAPEUTICS, INCLUDING THE ESSENTIALS OF PHARMACOLOGY AND MATERIA MEDICA

By Arthur A. Stevens, M.D., Professor of Applied Therapeutics in the University of Pennsylvania. Seventh Edition, Entirely Re-Set. Octavo of 758 Pages. W. B. Saunders Company, 1927. Cloth \$6.50 Net.

This book is a recognition of the value and importance of medical treatment in disease. In these days of specialism the attention of medical practitioners is particularly directed to the employment of various so-called specific agents, as serums and various mechanical agents as violet rays, diathermy, etc., all valuable in their place but should not be regarded as systems of practice in themselves.

A system of therapeutics is best represented by text-books like the one before us. It is refreshing to study the views of broad visioned medical practitioners who give drug preparations and other medical agents the place in the treatment of disease which they have earned through long years of observation and experience. Systems of practice have sprung up under the fostering influence of manufacturers who have educated groups of practitioners who are looking for specific agencies of an impressive character, thus escaping the painstaking study of disease and the rational methods of treatment. Dr. Stevens' work on therapeutics having passed

through seven editions emphasizes the fact that there is still a large class of practitioners who follow rational therapeutics.

This book is so arranged as to give the practitioner the best outlook in seeking the information he desires.

AFFECTIONS OF THE STOMACH

By Burrill B. Crohn, M.D., Associate Attending Physician to the Mt. Sinai Hospital, New York City. Octavo of 902 Pages, with 361 Illustrations, Some in Colors. W. B. Saunders Company, 1927. Cloth \$10. Net.

Another important work on diseases of the stomach comes to us. The stomach and its diseases has received so much attention from medical writers that it seems difficult to present anything new and the most the author can expect to accomplish is to clothe the subject in different and perhaps more attractive language. There is, of course, a certain amount of opinion evidence based upon established facts that appeals to the reader in one presentation better than in another. The reading members of the profession would not be satisfied with the observations and opinions of a single writer on so important a subject as the stomach. Therefore the justification for the numerous books issued from the medical press on apparently the same subject. The appearance of a new book is also a measure of activity in the medical profession.

We are particularly impressed by the extensive discussion on Radiography of the Stomach by Dr. Burrill B. Cohn, and the fine illustrations in the chapter on the Anatomy of the Stomach. The chapters on Differential Diagnosis of Gastroduodenal Ulcer and its treatment is particularly attractive.

The arrangement of the subjects treated and the type is to be commended.

RADIUM IN GYNECOLOGY

By John G. Clark, M.D. and Charles C. Norris, M.D., with a Chapter on Physics by Gioacchino Failla, E.E., M.D., D.Sc., Illustrated, \$8. J. B. Lippincott Company.

The authors of this book are recognized authorities on the subject of the use of radium in gynecology. This monograph differentiates those cases which are suitable for irradiation. The diagnosis, symptomatology, method of treatment, mortality, morbidity, and end results as well as an extensive view of the literature pertaining to the various gynecological conditions for which radium is employed is comprised in this volume. The authors have adopted a conservative attitude regarding the use of radium and evidently feel that radium is an adjunct and not a competitor to surgery. In certain conditions irradiation is clearly the treatment of choice, as in certain cases of benign uterine hemorrhage; in others such as carcinoma of the fundus, surgery gives better end results. The general impression of

the monograph is that of a carefully prepared, unbiased analysis of the use of radium in gynecology. This book is, we believe, the only monograph on the subject in English and is probably the most important one yet published on this subject. The chapter on the physics of radium has been written by Failla of the Memorial Hospital, New York, who has apparently especially prepared it for the average surgeon and physician. This chapter is a masterly portrayal of the physics of this remarkable element. The book is freely illustrated and the publishers are to be congratulated upon the fine appearance of the volume. This book should be of interest to every gynecologist, surgeon, x-ray man as well as to the general practitioner who wishes to keep up with modern methods and to secure the best form of treatment for his patients.

CLINICAL CARE-TAKING; SUPPLEMENT TO METHODS IN MEDICINE

By George R. Herdmann, M.D., Ph.D., Assistant Professor of Medicine, Tulane University, New Orleans. C. V. Mosby Co., St. Louis, 1927.

The purpose of this book is to explain how history-taking may be conducted in a clear and profitable way. In hospital practice, within a few years, a requirement is usually made that a complete history of patients admitted should be made. It is often found that these histories fail in presenting a logical account of the case in good English, but rather in a fragmentary manner. Therefore the author arranges a system of examination and record that will make the history interesting and profitable, which may be extended to cases in private practice.

It is a book not only for hospital records but also to be followed by the young practitioner in the beginning days of practice.

CERTIFIED MILK

Proceedings of A.A.M.M.C., C.M.P.A.A., C.M.M.C., and M.C.M.P., 1927.

This volume, published by the American Association of Medical Milk Commissions, contains a report of the various component societies of this commission. In this particular volume, the constitution and by-laws of the commission are given in full, together with the methods and standards for the production of certified milk. This book will be of particular interest to public health officials, or physicians having to do with the certification of public milk supplies. Numerous medical papers having to do with the use of milk, as in infant feeding, use of milk in schools, the bacteriological examination of milk, and the relative merits of certified and pasteurized milk, are ably discussed. The book may be obtained by addressing the American Association of Medical Milk Commissions, Incorporated, Washington, D. C.

R. R. S.

BRAIN AND MIND OR THE NERVOUS SYSTEM OF MAN

By R. J. A. Berry, M.D., F.R.C.S., F.R.S.,
Dean of the Faculty of Medicine in the University of Melbourne. New York: Macmillan Company, 1928; 131 Illustrations. Cloth, Price \$8.00.

In this volume, Dr. Berry has conveniently arranged his material in two parts. Part I deals in detail with the anatomy of the brain and nervous system. He discusses at considerable length the relationship which he feels exists between the mental capacity of an individual and the structure and size of the brain. He shows that there are definite anatomic abnormalities present in the brains of individuals having abnormal mentality. These anatomical abnormalities of course, are more marked in those in which the mental abnormality is of a more severe grade.

In Part II of the work the nervous system in health and diseased is discussed. His discussion of sleep, dreams and emotions is especially interesting. The program (which he outlines in detail) for making a clinical diagnosis of subnormal mentality is apparently exhaustive and particularly interesting since it represents a combination of both the psychological and anatomical measurements.

This book will create a considerable amount of discussion, no doubt, due to the fact that it is somewhat unusual that an author so strikingly adheres to an anatomic measurement of brain capacity and especially in its application to mental deficiencies. This book is recommended without equivocation to all students of nervous or mental conditions and to those especially interested in the measurement of mental capacity.

R. R. S.

NURSES, PATIENTS AND POCKETBOOKS

Report of a Study of the Economics of Nursing, Conducted by the Committee on the Grading of Nursing Schools. May Ayres Burgess, Director. New York City, 1928.

This volume presents the first report of the committee on the Grading of Nursing Schools. This committee was recently appointed for the purpose of conducting an investigation of nurses' training schools, on a basis similar to that employed in the investigation which has been conducted by other foundations regarding medical education. The members of this committee represent seven of our large national medical and nurses' organizations, with seven additional members selected from these professions at large.

The report presents in detail the information secured by questionnaires sent to many thousands of hospital executives, supervising nurses, nurses doing general and special duty, public health nurses, and a large group of physicians employing nurses. These questionnaires suggested some rather start-

ling facts concerning the economic side of professional nursing. For example, it is pointed out that in 1900 there existed in the United States 160 medical schools and 432 nursing schools. Due to betterment in medical standards, in 1926 there were but 79 medical schools, whereas nursing schools, having enjoyed no restriction in growth, now numbered 2,155. Their report further indicates that there is at this time a surplus in graduate nurses, and that this surplus, unless curtailed, will within the next forty years, grow into such proportions that the nurses available for duty will number approximately three times the number now practicing.

This volume rightly stresses the economic situation involved in the production of professional nurses, and while no effort is made to answer many of the problems revealed by this study, the problem is so presented that the reader is unconsciously encouraged to offer his own solution.

Each chapter of the report is summarized in a few short paragraphs at the end so that the reader may select with ease the material desired for perusal. An adequate index makes the book useful for reference. This volume will be found particularly interesting by nurses, hospital officials, public health officials, and all physicians employing nurses or interested in the training of nurses in the various hospital training schools.

R. R. S.

FOLKLORE OF THE TEETH

By Leo Kanner, M.D., Yankton State Hospital, Yankton, South Dakota. New York: The Macmillan Company; 17 Illustrations. Price \$4.00.

It would appear from the title of this volume that its contents might be solely legends concerning teeth. This, in a large measure, is true, but the author has cleverly woven into the fabric of his narrative certain important observations regarding normal and abnormal dental conditions. To the student of medical or dental history, this book will make an especial appeal, since it is the only volume of which we have knowledge dealing with this phase of dental science. The author has consulted a tremendous amount of literature in collecting his data. The presentation is in narrative form, and for this reason is pleasing to read.

R. R. S.

*Read the
Advertisements*

The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, AUGUST, 1928

No. 8

BRONCHIECTASIS*

JOHN H. PECK, M.D., Des Moines

Bronchiectasis exists much more frequently than was formerly suspected. It is of interest to the general practitioner and of special interest to the eye, ear, nose and throat specialist for the reason that the condition is so frequently associated with infections of the upper respiratory tract.

Briefly stated, bronchiectasis is a dilatation of part or parts of the bronchial tree and results from past infection of the lungs or bronchi or pleura. It is seldom, if ever, primary or congenital but frequently a mechanical affection, a byproduct of fibrosis, often not recognized during life. It is usually labeled bronchitis, intermittent bronchitis, recurring colds, etc. The variations in types depend upon whether the clinical symptoms have their beginnings in childhood or in adult life.

The etiology of bronchiectasis may be exceedingly complex, dependent upon whether caused by internal or by external factors. Among the factors inside the bronchi may be any injury to the bronchial mucous membrane, or inhalation of dust or gas, or stenosis from pressure inside the bronchi, such as tumors, or from a foreign body. The condition may also result from factors outside the bronchi, but in the lung tissue or the pleura, such as fibrosis of any kind as is so commonly observed in tuberculosis, lung abscess, pneumoconiosis, pneumonia, atelectasis, chronic fibroid pleura or empyema, pressure from malignancy, gumma or lymphoma, and in childhood whooping cough, influenza, frequent colds, etc. While the intimate relationship with infections of the upper respiratory tract is not the primary cause, such conditions must be corrected to obtain best results from treatment.

Pathologically, the simplest classification of the bronchiectatic lesions is according to shape; cylindrical, saccular, and shot-like or honey-comb,

the latter usually occurring in the root. These various forms are the results of progressive changes in the bronchi, first, swelling of the mucous membrane, desquamation of the cells, hypertrophy of the bronchial coats, loss of elasticity and, eventually, localized atrophy. The dilatations form in the atrophic tissue and, when areas of atrophy involve the complete circumference of the bronchi, there is produced cylindrical or fusiform bronchiectasis; when areas of atrophy are limited to part of the circumference of the bronchus, the sacculated type occurs because the weakened local wall bulges into the lung field.

The diagnosis in longstanding, chronic cases is comparatively simple if careful case analysis of the symptoms is made. The important diagnostic points are (1) chronic, paroxysmal cough of the deep bronchial type, which is always a chief symptom. The attacks of coughing are more frequent in the morning and are often precipitated by change of posture, becoming very troublesome in the late stages of the disease. (2) Expectoration is always present; if the lesion is near the root of the lung there may be but little sputum. The sputum may be mucoid, muco-purulent, blood-streaked, or offensive in odor, the latter depending upon the amount of stagnation or lack of drainage; the overflow is often not offensive but the residual secretion is much more likely to be fetid. (3) Dyspnea is also a chief symptom, always present in extensive longstanding disease and is usually marked. The patient can be dyspneic but not especially ill. It is dependent upon the extent of the lesion rather than upon the amount of toxemia. (4) Hemorrhage is more frequent than in any other lung disease, excepting tuberculosis, and is often the first sign, although profuse hemoptyses are relatively uncommon. This tendency to hemorrhage makes it very difficult to differentiate between bronchiectasis and tuberculosis. (5) The rales are usually basal; in early cases creaking or leathery; later of a coarse, bubbling character. However, if no rales are present but persistent cough and expectoration

*Address of Chairman, Section on Medicine, Iowa State Medical Society, May 9, 10, 11, 1928, Cedar Rapids, Iowa.

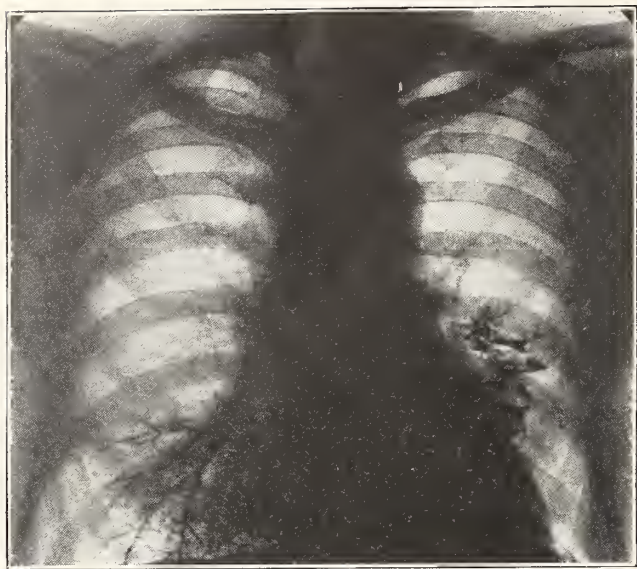


FIGURE 1. Case 1

toration exist, think of bronchiectasis. (6) Clubbing of the fingers, curvature of the nails, and a bulbous effect at the root of the nails are commonly observed, perhaps more frequently than in any other pulmonary condition. (7) The physical examination of the lungs may be so negative that it is almost impossible to make a diagnosis on the physical signs alone. (8) True pleurisy is uncommon in bronchiectasis, but other chest pains are frequent, troublesome, basal, usually occurring bilaterally.

The laboratory examination of the sputum is particularly important so that tuberculosis plus septic infection is not mistakenly diagnosed as bronchiectasis. It is necessary to search for elastic tissue, fungi, streptothrix, spirochetes, fusiform and acid-fast bacilli, and in certain cases to make guinea pig inoculations, so that tuberculosis may be definitely excluded. The blood count often gives valuable information as leukocytosis is the rule in septic infections of the lung.

Radiological examination is often negative or only suggestive, especially when the bronchiectatic cavities lie behind the shadow of the heart or low down in the base of the lung below the dome of the diaphragm. In such cases the use of iodized oil is of the greatest value, since frequently an absolute diagnosis can thus be made when the ordinary roentgenogram and the clinical examination are indefinite. Visualization of the bronchial tree by means of iodized oil is a safe procedure if the simplest precautions are observed. There are several methods employed for injecting the oil for lung mapping, namely, the supraglottic, the transglottic, the subglottic and the bronchoscopic. In the first and second procedures, a curved cannula is used and this method

is now generally adopted. In the subglottic method, a hollow, curved needle is passed through the cricothyroid membrane into the trachea, while in the fourth, the oil is introduced through a bronchoscope. There are many variations in the technique but the only essential is that the oil reach the part of the lung which it is desired to visualize; that the patient does not cough until after the roentgenologic study is completed and that the examiner has a clear conception of the appearance of the normal lung on the x-ray film.

In the normal, the trachea and the large bronchi are shown in outline by the iodized oil which clings to their walls, but the smaller bronchi appear as continuous solid lines, which diminish in width as they approach the thoracic wall. Surrounding the bronchi, the filled alveoli are represented by a coarse stippling. The alveolar shadows remain unchanged for about twenty-four hours and then gradually disappear during the ensuing ten days, although in an occasional instance the oil may be retained for weeks or even months.

The iodized oil, however, finds its greatest usefulness in the visualizing of bronchial dilatations and particularly in those earlier cases wherein cough is the chief or only symptom, and both physical examination and the roentgen-ray fail to locate the focus. After injection these early dilatations are shown as small, pouch-like shadows. Those of longer standing (more advanced) may be cylindrical or may resemble a hanging bunch of grapes, drops of tar or even the fingers of a glove. These abnormal shadows stand out

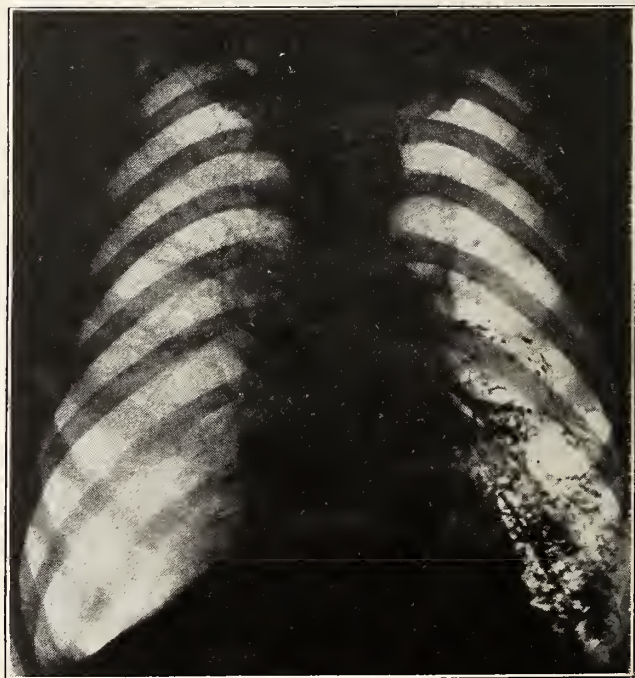


FIGURE 2. Case 4

in excellent contrast with the regular and more delicate outlines of the surrounding normal lung area. The following case summaries with accompanying lantern slides of the x-ray films will illustrate the diagnostic value of injections of iodized oil:

1. G. C. F., farmer, aged forty-two. As a baby, swallowed a hazelnut kernel followed by chronic cough and expectoration and indefinite rales. Recently had a slight hemoptysis. Physical examination revealed coarse moist rales in the left lower lobe near the sternum. Sputum negative for tubercle bacilli. The roentgenogram showed no definite changes. Iodized oil, 20 c.c. introduced and the result is shown on the next slide. You will note the saccular dilatations behind and along the left border of the heart shadow which were not seen on the ordinary x-ray film. Some of the oil was introduced into the right lung, giving a very striking comparison of the normal and abnormal on the same film.

2. A. M., school girl, aged eleven. Since bronchopneumonia at two years, has had chronic cough and profuse, foul-smelling expectoration. Recent large hemoptysis. Marked curved nails and clubbed fingers. You will note on the slide the very extensive destruction of the left lung with multiple cavity formations, marked thickened pleura and adhesions, also apical pneumothorax. An attempt was made to introduce iodized oil without success. Some of the oil is seen in the stomach.

3. L. C., school boy, aged sixteen. E. C.: Chronic cough with abundant expectoration, often fetid, worse during the winters. Onset followed influenzal pneumonia in 1920. The iodized oil clearly shows the right bronchiectatic sacculations. The left lung is also involved but was not injected.

4. C. R. I., metal worker, aged forty-four. Onset with an attack of pneumonia in 1911 followed by lung abscess which cleared. E. C.: Recurring attacks of fever, chills and sweats with severe cough and large quantities of foul smelling expectoration. The iodized oil was very helpful in differentiation in this case, as you will note the characteristic saccular and cylindrical dilatations of bronchiectasis. Improved by treatment.

5. G. C., Italian school boy, aged twelve years. E. C.: Troublesome chronic cough, worse at night, profuse expectoration, increased by change of posture. Onset following an attack of whooping cough with bronchopneumonia nine years previously. Diagnosis: Bronchiectasis right lower.

6. W. W. M., foreman, aged forty-two years. E. C.: Chronic cough and profuse expectoration since an attack of influenza eighteen months ago. Recurring slight hemoptyses, more profuse recently. Considered to be a case of chronic pulmonary tuberculosis plus septic infection. Iodized oil was injected into the right bronchus and the lung structure of the lower lobe appears to be normal.

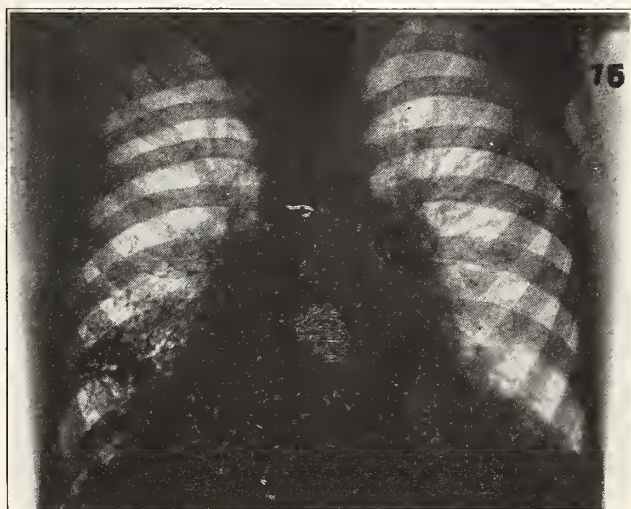


FIGURE 3. Case 5

7. A. A. J., miner, aged sixty-five years. E. C.: Longstanding cough and profuse expectoration since an attack of pneumonia several years ago. Iodized oil injected several months previously while in Arizona. Considerable iodine still clung to the bronchial walls and he felt greatly improved. Requested another treatment.

8. M. M., aged nineteen years. E. C.: Chronic cough, profuse amounts of yellow green sputum since April, 1926. Onset dates to an attack of influenza in 1925, cough persisted. Iodized oil per bronchoscope; distribution in the left base is very characteristic of a well-developed cylindrical type of bronchiectasis; small amount of oil in the right base, also in the stomach. Definite symptomatic improvement from the injections.

9. J. J., aged twenty-eight years. E. C.: History of hemoptysis and expectoration of 2-4 ounces per day of foul smelling pus-containing sputum and chronic cough since 1916. Iodized oil shows very marked evidence of mixed type, saccular-fusiform-cylindrical bronchiectasis with definite evidence of fluid levels in the bronchiectatic areas in the left base.

10. B. A., housewife, aged thirty-four years. Onset five years ago following pneumonia and pleurisy. The iodized oil was introduced in the right lateral decubitus and the major portion is found in the right base. Large dilated bronchus leading toward the base where it ends in small dense shadow. Above this and apparently in the lower lobe is a less dense shadow of considerable size. Conclusions: Marked bronchiectasis.

11. R. K., aged fifty-four years. E. C.: Chronic cough, persistent expectoration of pus-containing sputum for past five years. Iodized oil per bronchoscope is well distributed in right lower lobe, suggesting moderate bronchiectasis of saccular and cylindrical types. Improved by repeated injections of iodized oil.

12. M. A., aged twenty-two years. E. C.: Chronic cough, hemoptysis, expectoration of 2-4 ounces per

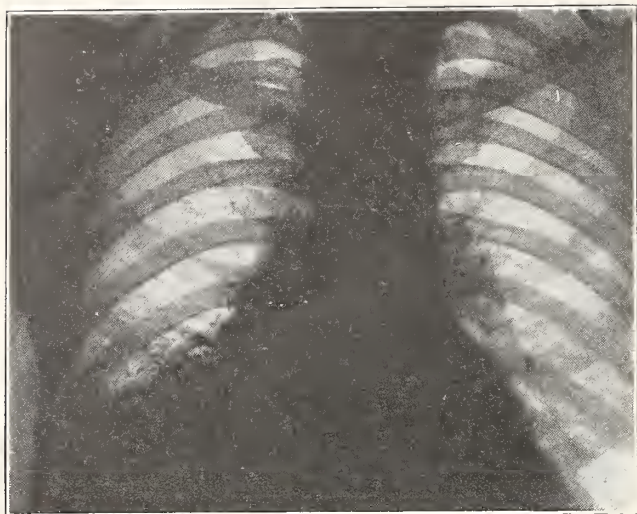


FIGURE 4. Case 6

day of pus-containing sputum. Onset following a "cold" in January, 1924, becoming progressively worse. Iodized oil per bronchoscope. Distribution of the oil in the left base shows definite evidence of a rather well-marked bronchiectasis, principally behind the heart shadow.

13. L. F., aged thirty-six years. E. C.: Cough and expectoration of four ounces per day of pus-containing sputum. Onset followed pneumonia in 1925, ten days post-appendectomy. Distribution of the iodized oil is suggestive of bronchiectasis plus inter-communicating bronchiectatic cavitation in the right base.

The first principle in the treatment of these septic conditions is, when possible, to remove causes. Carious teeth, dental abscesses, pyorrhea, diseased tonsils, chronic sinusitis, in short, any foci in the upper respiratory tract should be corrected, even though all possible harm seems already done.

The main reliance in the early stages is upon rest. If applied intensively within the first few months most of the ordinary infections will clear up, but it must be early and must be real rest in bed. Loafing, which often passes for rest, has little value, moral or therapeutic, while real rest perseveringly carried out will accomplish great benefit in the early stages.

Postural drainage is a very useful measure in almost all stages and should always be given a thorough trial. When it is hard to cough up secretions, work with gravity rather than against it; literally stand the patient on his head and have him cough down. Bronchiectatic cavities constantly filled cannot very well be expected to shrink or heal, but, if kept well emptied, there is at least a better chance of their doing so. In the earlier stages then, emptying out secretions by postural drainage is very beneficial. In late stages, even, it may make life once more worth

living for a distressed sufferer by giving him intervals of several hours without cough, sputum or offensiveness.

The new bacteriology of septic infections of the bronchi, the finding of strong circumstantial evidence, and perhaps even direct evidence, against certain spirochetes, leads naturally to the treatment of these conditions by arsphenamine. Under this treatment the spirochetes do disappear temporarily. The use of potassium iodide in some of the mycotic infections seems to be of definite value. Autogenous vaccines or even stock combined respiratory vaccines are often of benefit in selected cases in the earlier stages.

The new bronchography has led to a new treatment, but whether it will be successful or not remains to be seen. Stuart Pritchard of Battle Creek claims that the "slow liberation of the iodine in the bronchial tree is an ideal treatment in chronic infections of the lower respiratory tract." Experience is limited but it would seem that iodized oil is worthy of extended trial as a rational therapeutic measure.

The new surgery of the lung presents many interesting possibilities and the otherwise hopeless patient will naturally grasp the chance offered by the aseptic scalpel. Artificial pneumothorax immediately suggests itself but it is more likely to be of value in lung abscess than in bronchiectasis. A bunch of sacculated bronchi may be compressed by the pneumothorax but still remain sacculated. The operation of phrenicotomy which causes paralysis of the diaphragm by cutting or exeresis of the phrenic nerve on the affected side is usually disappointing because the diseased area persists. Extrapleural thoracoplasty may so collapse the lung that symptoms are

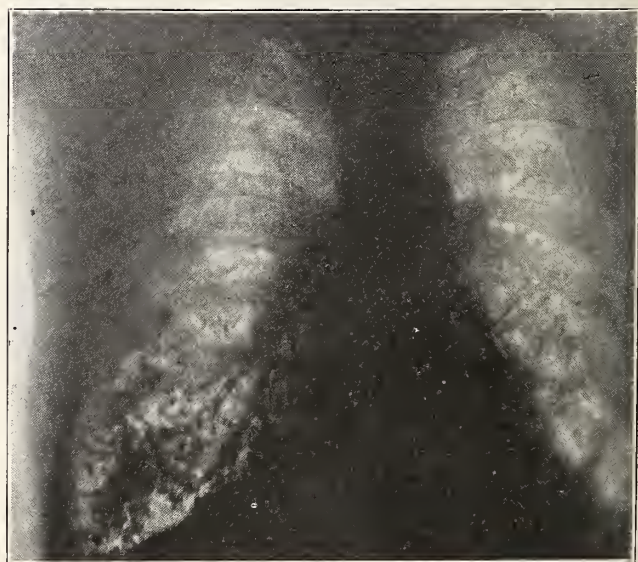


FIGURE 5. Case 7

lessened and sometimes a real cure is effected. Also the destruction of the diseased lung tissue by the actual cautery as advocated by Evarts Graham of St. Louis offers a worthwhile chance of benefit in desperate cases.

The best cure, however, for most ills is prevention, and that is very true in bronchiectasis. Physicians, like other sensible people, admit this principle very readily in theory, but its practice is a very different matter. Better and more general dental care is of the utmost importance. Eradication of foci of infection about the nose and throat is essential in prophylaxis as well as the first step in proper treatment. Most important of all is that acute infections of the respiratory tract such as are, or may be, accompanied by bronchopneumonia, should be given a much longer period of convalescence. An extra few days or a week in bed will prevent many instances of septic infections of the lung. This generation of physicians has a real opportunity to anticipate the medical practice of the future, that of preventive medicine.

SUMMARY

1. Chronic bronchitis is usually bronchiectasis. One of the commonest of all disease conditions is chronic cough, and septic infections are responsible for nearly one-half of them.

2. Bronchiectasis follows infections of the upper respiratory tract, and, perhaps, bronchopneumonia is the most essential factor. The nose, sinuses, throat and teeth should be treated, if diseased, in all cases. But remember that the bronchiectatic cavities may continue to cause cough after the tonsils are removed or the sinuses drained.

3. Certain spirochetes and fusiform bacilli, which seem not very harmful in the mouth, become pathogenic under certain conditions and seem to be the specific cause of bronchiectasis.

4. There is a new diagnostic measure of great value in iodized oil. The technique is comparatively simple.

5. Differentiation between bronchiectasis and tuberculosis is not difficult if all the facts are elicited and the evidence submitted to critical case analysis.

6. The course of bronchiectasis is very variable, but it is usually progressive, debilitating and, not infrequently, fatal.

7. Rest in bed is absolutely the most important treatment in the early stages, but it is of little value in the late stages, except as a palliative. Drainage by posture is very useful, especially in the early stages. Various forms of collapse

therapy are of benefit in selected cases. Arsphenamine is suggested where spirochetes are found in the sputum. The use of iodized oil as a therapeutic measure is still experimental but promises excellent results. In late stages with extensive lung destruction treatment is of no avail.

8. Prevention of bronchiectasis by improved hygienic care and prolonged convalescence after acute infections of the respiratory tract is the problem of modern medicine.

1223 Bankers Trust Building.

EMBOLISM*

WILLIAM A. ROHLF, M.D., Waverly

A mother, age sixty-four, was operated for large fibroid, uncomplicated convalescence. On the sixteenth day she was ready to go home, her son came upstairs to meet her. She stepped into the hall and dropped dead at his feet. A surgical tragedy.

A young wife gave birth to her first child, course uneventful till the tenth day. The child had been named, and the whole family were happy. The grandparents came from a neighboring state to see their only grandchild. Just before their arrival the young mother anticipating the coming of her parents suddenly clutches at her chest, makes a few gasps and dies. An obstetrical tragedy.

A young man recovering from a severe pneumonia, has passed the crisis and planning to leave the hospital. The next day he suddenly develops cyanosis, dyspnoea, terrific pain in the chest, and later coughs up several ounces of blood. A long convalescence but recovers. A well-nigh medical tragedy.

These are tragedies we have all seen.

The records of our little hospital show that out of 17,011 cases, medical and surgical, we have had thirty cases of embolism. Six medical and twenty-four surgical. Twenty-four cases of pulmonary and two in the femoral artery. Five cases followed hysterectomy, two of them being in the femoral artery, six cases followed operation for suppurative appendix. There were five recoveries, two surgical and three medical.

St. Mary's Hospital, Rochester, Minnesota, reported 57,000 major operations with a mortality from pulmonary embolism of .07 per cent. The Mayo clinic in the last ten years reports 6 per

*Address of Chairman, Section on Surgery, Iowa State Medical Society, May 9, 10, 11, 1928, Cedar Rapids, Iowa.

cent of their deaths due to pulmonary embolism found at post-mortem.

Dr. Kellogg Speed reports thirty cases of post-operative pulmonary embolism in the Presbyterian Hospital of Chicago during fourteen years. These are reported as following all sorts of operations. Anesthetic made no difference. The average age for men was fifty-three years and for women forty-four years. The number of deaths was twenty-three. The average time of onset after operation was seven days, the shortest time one day. The first symptom was usually a sharp pain in the chest. In massive emboli, chest findings are not found because death follows the attack so quickly.

The emboli are either septic or non-septic. In Speed's collection of thirty cases, twelve were cases of infection.

As causes:

1. Thrombokinase, a factor of importance in blood coagulation is liberated from tissues by wound trauma, finds its way into the lymphatics or by open veins into the blood stream in small amounts.

2. Venous stasis must be in or near the great veins. Other factors are the presence of bacterial toxins causing corpuscle degeneration, trauma and subnormal or increased blood-pressure. Rosenow believes that the presence of the gram positive diplostreptococcus is the cause of the thrombosis and resulting embolism. It would seem possible that the too tight bandage might cause venous stasis below the constriction of an extremity or a bandage too tight over the abdomen would cause stasis in the large intraabdominal veins and encourage thrombosis there. Severe trauma of soft parts and fracture of bones of the extremities are sources of emboli. The saphenous veins are not often involved but the unknown thrombus in the larger and deeper veins are more frequently the dangerous ones. Emboli have been given off from thrombi in jugulars and axillary vessels.

Veiter says that most thrombi originate in femoral and pelvic veins. Another source of emboli is the auricular appendix or vegetations on the valves of the heart.

Let us remember that one of the chief causes of thrombosis is the change in the blood following operations, in that there is increased leucocytosis which furnishes thromboplastic substances playing an important part in the coagulation of the blood.

Postpartum embolism follows either endometritis, acute or chronic, or without infection for the same reason that an embolism may result

from an apparently uncomplicated surgical procedure.

Medical emboli may follow heart lesions, malignancy of lung, kidney hypertension, or pneumonia, etc. The etiology here is thought to be slowing of the blood stream and injury to the endothelial membranes.

Reports indicate that obese individuals are more liable to embolism and that advanced age is a very prominent factor.

As to post-mortem pathology I quote Dr. J. S. McCartney, Jr., Minneapolis. Report is based on seventy-three cases of fatal pulmonary embolism from the pathological department of the University of Minnesota. Cyanosis pronounced at time of death disappears soon after death, edema of the tissue may be present. The heart findings consist of distention of the right ventricle and auricle. The embolus may be found obstructing either the right or left pulmonary artery or riding over the bifurcation filling both the pulmonary arteries. The embolus may be made up of many pieces or by a long folded or coiled mass of blood clot. More frequently the right pulmonary artery is involved than the left.

Where death is delayed there may be found a number of emboli in the pulmonary artery which resembles thrombosis. In sudden death the lungs may be normal or show edema and congestion. In slow death infarcts, bronchial pneumonia, or abscesses may be present with acute passive congestion of the liver, spleen and kidneys. The source may be near the wound or distant from it or may not be found at all.

In severe cases patients are suddenly stricken with cyanosis, dyspnea and pain in the chest which is sometimes referable to the abdomen. Rapid pulse, cold perspiration, agonized facial expression and bloody expectoration following the pain. Many of the cases are so severe that death ensues immediately. Where the embolism is not so large and where it occludes one or more of the small vessels infarcts are the result. These infarcts many times cause pleurisy, gangrene, abscesses or pneumonia. Mortality, 12 to 15 per cent. Very small infarcts may occur without any reaction as to pain, fever, bleeding, or physical signs; some, however, may later develop an empyema or lung abscess.

The real important message is in the discussion of the prophylaxis and this applies expressly to the pre-operative care of patients.

1. There should be no unnecessary operation.
2. The patient should be in the best possible physical condition. Emergency surgery cannot come under these conditions.

3. A careful chest examination should be made to eliminate any lung pathology. This examination of course include the heart excluding infection therein as septic emboli are to be dreaded most.

4. Elimination of all foci of infection, such as septic teeth, diseased tonsils, infected sinuses, rectal fissures or any other infection.

5. The body fluids should be increased especially where the circulation is poor. The patient should not be starved previous to operation.

6. It will not be amiss to have the patient's mental condition the best possible in the way of confidence and cheerfulness, because there is an element in the mental condition productive of more or less shock and in this way depressing and slowing the circulation. At this point there may be a discussion as to the contraindication of morphine, because of its slowing affect on the blood stream during operation.

7. The patient should be in as comfortable position as possible when on the operating table.

8. The patient should be kept warm.

9. Care in technique. Tissues should be handled gently. Sharp dissection is preferable to blunt dissection and tearing of tissue. Blood clots should be removed from the wound, and we should not tie tissue en masse. Septic wounds should be thoroughly drained of course, and I hesitate to suggest that the operation should not be prolonged beyond any necessary time, especially in abdominal surgery where exposure of abdominal organs tends to congestion and stasis. There should be gentleness in placing of abdominal pads and real care exercised in the handling of sponges.

Post-operative care:

1. We should avoid venous stasis by employing bandages that are not tight and avoid tight abdominal binders.

2. The body fluids should be kept up by use of salt solutions, blood or glucose.

3. Use digitalis where indicated.

4. Avoid all strains at stool and above all change position of patient frequently and more especially so in elderly people and those with low blood-pressure. While visiting the obstetrical clinic of Professor Walther in Zurich, Switzerland, in 1925, we were given a demonstration of exercises by women twenty-four hours after confinement and continued twice a day until discharged from the hospital. The idea of these exercises being to prevent embolism. This procedure is also recommended as post-partum prevention of embolism by some prominent American obstetricians.

5. Keep the patient warm, protected from draft, and given abundance of fresh air.

6. Be alert and investigate thoroughly any symptoms of pain developing unexpectedly in the abdomen or pelvic regions especially or in the lower extremities.

7. If thrombosis is evident in the superficial veins and emboli are given off from these, ligation is to be considered. If the embolism is not immediately fatal, stimulate with adrenalin or other stimulants as needed, and keep the patient absolutely quiet with opiates and ice packs to the chest.

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THERAPEUTICS—PAST AND PRESENT*

H. D. HOLMAN, M.D., Mason City

In taking up the subject of therapeutics, past and present, let us for a brief moment look into the yesterday of our profession.

In eighteen hundred and forty-two the first bathtub was installed in the home of a wealthy Cincinnati manufacturer. In consequence, the daily press was flooded with letters from irate physicians. The medical men said the shock of taking regular baths would be dangerous! The idea was criticized so severely that in one of our sovereign commonwealths the legislature, acting upon the tip given by doctors, whom the public thought knew more about health than any layman, tried to stop this "Devilish idea" by imposing a tax of thirty dollars on each bathtub.

Boston, following this lead, actually prohibited baths except after proper medical advice—the city ordinance being drafted by physicians.

In Philadelphia an ordinance making it illegal to take baths except after March and before November was defeated by only two votes.

Even at as late a date as when the older ones among us began the practice of medicine, the public was back of the medical man almost one hundred per cent. Poor results were not considered due to any inadequacy of the thera-

*Read before the Austin Flint-Cedar Valley Medical Society.

peutics: but rather to inability on the part of the man administering the remedial agent.

Dr. Jones was giving ipecac in large doses, with perfect faith in its efficiency as a therapeutic agent. Dr. Smith was giving ipecac in one thousand X dilution, with the same degree of faith in its curative powers.

About this time, however, the diagnostic branch of medical science forged ahead of therapeutics, and the medical schools as to drug action taught therapeutic nihilism, with the result that the outgoing graduate saw nothing in ipecac but the emetic effect.

The public still had aches and pains. The medical profession was very much better equipped to determine the lesion, but had lost its psychic influence and the public instinct of self-preservation was left unsatisfied.

Palmer and others saw and commercialized the opportunity—until today we have such things as the following to meet:

A young woman of twenty-seven years of age, healthy and a teacher in the Mason City Junior College, came to my residence as a guest on a Sunday afternoon in February. While sliding down a moderate incline she had the misfortune to strike her right side just above the hip, against a tree. She was placed in bed and cared for until Wednesday, on which date she insisted on going back to school. Observation and examination elicited nothing, except a moderate degree of trauma of the muscular tissue in the region of the right kidney.

Within a week she was in the hands of a chiro. He made a diagnosis of a three inch shortening of the right leg. In other words, she got her leg pulled, and seemed to believe in the pulling.

How long will the medical profession worship at the feet Aesculapius, dream the Hippocratic oath and leave an unbalanced therapeutic field to be exploited by the quack and charlatan?

With these preliminary remarks, I will turn to the present and call to your attention briefly modern therapeutics, surgery, medicine and physical therapy.

Modern surgery needs no introduction, as it has already been accepted at face value by the public. In the hands of a skillful man there seems to be very little room for improvement. Unfortunately, however, the unscrupulous and the unprepared to a certain extent blacken the good name for the sole reason—the lack of the forty, ten and five that the ordinary retail plumber gets from the wholesaler.

Can we blame public criticism? How many of those present dare justify the destruction of

uvulas and pillars that we know exist in our respective communities.

Modern science has given us specifics and near specifics. Our therapeutic nihilist now has something to say and do. He has of old calomel and ipecac for their direct physiological effect; toxins and antitoxins as specifics; quinine, digitalis and arsphenamine as near specifics. Such a range of therapeutic agents without question places modern medicine on a par with surgery.

The field of medicine and surgery are so complete that no practitioner, however conscientious, need hesitate to hold any patient, psychically or otherwise, that justly comes under either classification.

In spite of the completeness of medicine and surgery, we still have a group of cases untouched and still unsatisfied. Here we must turn to physical therapy to complete the modern therapeutic equation.

Physical therapy is not new in therapeutics. There is nothing mysterious nor particularly spectacular in these physical agencies—just the administration of artificially produced heat and light in their various modifications.

Unfortunately to place these physical agents in therapeutics requires the manufacture of equipment. The manufacturer's interest is primarily financial. In consequence, the country is being flooded with equipment, much of which is inferior. Both the conservative physician and the quack are filling their offices with this equipment; and both are woefully ignorant of the fundamental principles underlying their uses.

Each man is led to believe that all you have to do is turn them loose and expect the miraculous. There can be but one result—scepticism on the part of the conservative, and physical therapy, left to be crucified by the irregular and the quack.

The duality of action of heat and light has created the environment in which we have reached our present state of physical development. The action of light is superficial. The action of heat is deep. Light stimulates the catabolic activities of the body. Heat stimulates the anabolic, and in excess produces a state of anaphylaxis.

In consequence there is an ever changing duality in life, in evidence by the ever changing ratio of calcium and potassium.

Light (referring to the ultra-violet spectrum) has two principal uses. First, a biochemical action either through absorption by the capillaries or a direct action on the superficial cells in

the skin. We get as a result a stimulation of the sympathetic nervous system, a consequent increase in internal glandular secretion, also the fixation of calcium with a marked increase in cell resistance. The end result being a more perfect cellular metabolism. Second, in the shorter actinic rays we have the most powerful counter irritant that it is possible to apply to any tissue without doing damage. These two features place light in the field of therapeutics as a wonderful remedy.

We find heat nearer the other end of the spectrum, and its action is deep. Heat stimulates the anabolic or potassium side of the equation, has a tendency to decalcify and make possible a more complete absorption.

Heat is classified under three heads: Conductive, convective and converse. The first two forms do not penetrate the body beyond the reflexes, while converse heat may be produced in any tissue to any degree desired.

With proper equipment for artificially producing this remedy we have again placed in therapeutics a remedy that surpasses all others in its range of usefulness.

Physical therapy applied by one who knows *how* and *when* and *where* equals in every respect either medicine or surgery.

We need no longer be ashamed or keep silent. We have already remained silent too long in the self-imposed position portrayed in the following verse:

A wise old owl lived in an oak,
The more he saw—the less he spoke,
The less he spoke—the more he heard—
Should the profession remain like that old bird?

Today the United States, Great Britain and Canada are the scenes of campaigns of ethical publicity. Is any one scoffing?

NEW MERCY HOSPITAL NEARING COMPLETION

The new Mercy Hospital at Burlington, Iowa, under the management of the Sisters of Saint Francis, is rapidly nearing completion. This hospital is entirely of fireproof construction, comprising six full floors, with basement and attic.

The management expects, within a very short time, to hold a formal opening, at which time a free clinic will be held. Many of the physicians of Burlington have volunteered their services for this clinic, which assures its success. At the time of the formal opening, special hospital rates will be offered to those patients needing hospitalization.

The building is entirely modern in all appointments, and will be one of the foremost institutions of this sort in Iowa.

REVIEW OF FIFTY CASES OF CAESAREAN OPERATION WITHOUT MORTALITY*

J. NIEMACK, M.D., F.A.C.S., Charles City

THE OPERATION

We begin the operation after a hypodermic of ergot with a five or six inch incision: one-third above, two-thirds below and slightly to the left of the umbilicus. If necessary, this can be enlarged in either direction. With the one hand in abdomen working as a lever, the other one pressing from the outside, the uterus is coaxed out, straightened out and supported by the hands of the assistant, who at the same time compresses the arteries, but without fixing the head of the baby. A towel is spread over the upper part of the incision, and this is generally sufficient to retain the intestines in the abdomen.

The uterus is now incised transversely between the tubes; carefully, layer for layer; not from fear of cutting into the placenta, which is generally near. That does not matter. But as a rule most of the amniotic fluid has run off before the operation was decided on, and the fetus' hips are right under your knife and have been scratched a few times. If the bag is still whole, it is opened as usual, and the child grasped by the hips and extracted. Assistants take it and clamp and cut the cord.

Of course the dark blood from the uterus is pouring out all this time; but there are no spurters, as Fritsch has shown, as we can confirm from experience. I am not even sure that the compression of the uterine arteries is required. Pituitrin has been given hypodermically as soon as the womb is turned out. The placenta is speedily removed by any one of the usual means, often it falls out, as the uterus contracts. This contraction promptly reduces the size of the transverse incision.

Some kneading of the uterine walls and speedy sewing up controls the bleeding. It looks formidable; but has never caused trouble before or after. I attempt to place three rows of continuous double chrome gut sutures (No. 1 or 0) and bring the peritoneum together by a fourth Cushing suture. Our experience shows that it really matters very little if the endometrium is enclosed in the first line. I pay small attention to this point when in a hurry.

The bringing down of the omentum, to be placed between uterus and bowels, and the toilet and closure of abdomen are as usual.

*Read before the Austin Flint-Cedar Valley Medical Society.

When a hysterectomy has been decided on, I make no attempt to remove the placenta, and employ the Dickinson two-suture method. Lately I found it quite expedient first to put two ligatures about the uterine arteries, including some muscular tissue, which greatly eliminates the danger of bleeding at the final amputation from the cervical stump.

As to post-operative hernias, I can state that as far as I know, only one small paraumbilical has resulted. The others are firm. This agrees with the well known rule that the lower down the incision, the greater the danger of hernia. It is a simple technic and can be highly recommended to other surgeons situated as we are.

The 50 cases forming the basis of this review begin in 1914 and cover about twelve years. It cannot be my intention to repeat to you such matters about Caesarean operation, as you have read in textbooks and magazines. But from a series of over 50 consecutive cases,¹ which have been under my hands, we might draw a few lessons to the profit of our parturient patients. Obstetrics has been for so many thousand years nothing but midwifery in the hands of old women; the death-rate from puerperium is still frightfully high, and we have learned by this time that the best asepsis is not an absolute protection against infection.

Bearing children is a physiological function; not pathologic. And yet this physiologic function brings on more deaths and crippling than real sickness is allowed to do today. Often enough the additional death of the child frustrates even at that the physiological work of nature.

No doubt your present American woman is a very different proposition from her grandmother; and we physicians have to take this into account, when our help is demanded in obstetrical work. Today the doctor would find a poor audience with his preaching, that often the first child must break the ice and pave the way for its luckier brother to come, and pay with its life for this yeoman work. For birth control is a fact—all our opposing laws notwithstanding.

The women in any community who are willing—with their newly acquired political freedom—to remain slaves to their still unborn children, can easily be counted on the fingers. Medicine has no dogma, and a fundamentalist is out of place in this science. We must help securing

for the women their right of life, health and happiness. Nothing else matters for the doctor. Let every obstetrician attend to his cases as best as he can. He will have large numbers of successful labors with healthy mothers and children. But when he begins to doubt his ability to cope with the problem, let him not waste the last remaining vitality of the laboring woman, but consult with the obstetrical surgeon.

It is very true, that after such operation, it is doubtful if a woman should try to have other babies by natural labor. But what does that objection amount to at present? Would people have them, even if they could? Practical birth control has weakened this objection considerably.

After this introduction let us look at the cases themselves. They are instructive: Of the fifty only ten were operated on without a test of labor on account of narrow pelvis, etc. A primipara of 40 with a large child was considered a fitting subject, when she so desired. The company of a living baby is for her more comfort than a walk to the cemetery would be. Doctors must very often interfere with providence, if it is their aim to secure health, life and happiness for their people.

The other forty cases all had a more or less prolonged test of labor; and they must be considered as "unfavorable" for Caesarean according to general experience and teaching. Eleven placenta previa and abrupted placenta cases. Twenty narrow pelvis with labor test of as high as fifty hours and repeated forceps attempts. Six frank eclampsias; two of increasing nephritis—all of these recovered. A duplex vagina case was seen, when in premature labor, and was operated on to prevent bad lacerations and a hemorrhage, hard to control.

One hemorrhagic and one eclamptic case, both premature with very small children, who gave no signs of life, had the vaginal section and both babies are alive today. The rest of forty-eight were operated on by Fritsch transverse uterine incision. From the fact that only six stayed in the hospital for more than sixteen days and thirty-three were discharged in less than two weeks, you can estimate the smoothness of the wound healing.

Hysterectomy, the so-called Porro operation, was done eleven times. The surgeon who dares to leave the uterus behind after protracted labor, many examinations or forceps attempts, will have many sleepless nights and necessarily a greatly

1. Today, July, 1928, there are 59 cases without fatality.

increased mortality. I let you be the judges, whether or not my record proves the soundness of my standpoint.

The nurse's impression agrees with my own, that the Porro cases made smoother recoveries, than the others, taken altogether by and large.

The time honored custom to take a physic, when labor pains begin, has been responsible for a great deal of distension for the first few days. Rarely was the stomach tube needed; but siphonage—enemas with asafetida, and in spite of DeLee's teaching—puitritin, gave satisfaction. I have seen no untoward effect from the latter drug.

Aside from several prematurely born children, one anencephalous and one stillborn with a true knot in the cord, the children are living and strong today, forty-two of them.

To sum up: Caesarean operation in these highly unfavorable cases gave us about as good a rate with mothers and babies, as natural delivery in favorable cases will give.

I was interested in having our neighborhood birth statistics for five counties and wrote for information to the Des Moines bureau of vital statistics, but received the answer that there is no money available and no trained help to furnish an answer: We doctors should see to it that all our work with vital statistics does not remain just that much dead red tape. Sorry, that we cannot make any comparisons between counties, where Caesareans are frequently done, and others where they are not.

Every county has now a hospital and can attend to its own emergency surgery. But I cannot consider DeLee's low incision with its more delicate peritoneal work as the proper technic for our country conditions. The simplest technic, if it is sure, should be accepted as standard. And I consider Fritsch's transverse uterine incision as the choice.

In closing I wish to repeat, that we had no chance to select our cases. Wherever the attending obstetrician and consultants considered that the obstetrical resources were exhausted or inadequate we stepped into the breach and operated. We used a technic, which fitted our inadequate ability, and we did not dare to leave a suspicious uterus behind, but did a Porro, where there was good reason for it, and that was in one case out of five. We refrained from superfluous vaginal examinations and finally, we did not wait till the mother was too much worn out by her agony as to make a recovery.

A TRIBUTE TO THE PROFESSION OF FAYETTE COUNTY *

C. D. MERCER, M.D., F.A.C.P., West Union

This is not a scientific paper on a medical subject, but, for the purpose of bringing out a discussion, I wish to present a few facts and a few problems that confront the medical profession of Iowa and Fayette County.

A little over a year ago, a president of the American Medical Association sitting at his desk in Chicago, lamented the lack of proper medical attention to millions of rural people throughout the United States, and suggested as a remedy the formation of two standards of medical education, one like the present to supply doctors for the city, and a lowered requirement to supply rural districts. As we who live in Fayette County, a strictly rural county, read those articles, I am sure we were all struck with the absurdity of the whole thing, as it applies to Iowa, one of the most rural states in the Union.

I took the latest edition of the American Medical Directory, and I found that barely fifty per cent of the doctors in Chicago, the author's home town, were graduates of class A schools. Not over sixty-five per cent of the doctors practicing in the three largest cities in Iowa were graduates of class A schools, but ninety per cent of the doctors in Fayette County were not only graduates of A schools but from five of the oldest and best known schools in North America. I do not believe there are more than one or two doctors practicing in Fayette County today who were not licensed before the present standard went into effect, but there is hardly a man in the county who did not have the same training required by law today. Most of our doctors have had from one to three years post graduate instruction in America and abroad.

Where is there a family in Fayette County today which needs to suffer for lack of medical attention? There may be a few days in the spring when families living off the main roads may have to wait just a little longer to get a doctor, or cannot have him come just when they want him, but that is an economic problem fast being met by better roads. At the present time I believe Fayette County is amply supplied with doctors and ably supplied as well.

You read many articles in the lay press defending the country doctor. Why do we need defense and why are we on the defensive? The country doctor and the family doctor are being

*Read before the Fayette County Medical Society at Clermont, Iowa, November 30, 1927.

put on the defensive by the large medical centers. Those of us who have hospital facilities know that the percentage of correct diagnosis is greater after we have made them in the hospital than those made at the bedside of the patient. The doctor who does not have hospital facilities is at a disadvantage. He is called out in the middle of the night to see a patient six or eight miles in the country, and sits down beside a bed, with a kerosene light for illumination, and after taking a history and as careful an examination as he can under the circumstances, he decides that his patient should go to the hospital. At once he is put on the defensive, and must prove his claim. He must tell them something or they will not budge. After this patient arrives at the hospital, he is given all the known tests of medical science, by several assistants and technicians and is finally opened up and possibly the correct diagnosis is made after the abdomen is opened. This diagnosis is relayed back to the little country town and the first doctor's diagnosis is compared with theirs, without taking into consideration the different conditions under which they worked.

Often these patients come back filled with unwholesome thoughts about their doctor, gathered from remarks they have picked up while in the hospital. A careful analysis of these remarks proves that they do not come from the staff physicians, but from internes and resident physicians. Would it not elevate the whole profession if some fancy course in physical chemistry were dropped and a course in ethics given at our medical schools?

If we wish to administer a dose of antitoxin we are at once questioned about our diagnosis and we must defend our antitoxin against claims that it is injurious to inject it into the body. Recently the superintendent of one of the high schools in the county advised his pupils against immunization. He is a graduate of a one horse college not recognized by the North Central Association and has had no scientific training whatever. The public seems to be well informed on the fact that medical men are highly trained scientifically, yet we find ourselves on the defensive end of the argument.

In the past ten years the general mortality rate in the United States has been cut one-seventh. In thirty years it has been cut one-third. The medical and sanitary progress of forty years is saving nearly a million lives a year. At the present time the average length of life has been increased from twenty years in the sixteenth century to fifty-eight years at the pres-

ent time. In two decades alone it has been lengthened eight years.

The death rate of infants of over one year of age has been cut one-half since 1900. At the completion of each five year period, the rate of deaths per thousand of population was lower than for the preceding period. This is the net profit to humanity of the work and self-sacrifice of the medical profession. What is the net profit to the medical profession. Are we selfish if we ask that question? Not a man but who had rather have gratitude for his work than riches. The record from Lister to Banting has been an impressive one, but are we receiving gratitude from the public. I believe the public is more suspicious of the medical profession today than ever before. At least we must admit there is a great deal of unrest in the medical profession. With all our technical training today, we envy the old family doctor who lacked that training but nevertheless was a gentleman to his finger tips and was beloved by his people.

I believe we are becoming too technical in our work. We are living in a mechanical age. One of inventions and big industries. The public expect mechanical accuracy from us. Medicine is not an exact science, but enough scientific accuracy has been instilled into it in recent years and because we are becoming so dogmatic in our laboratory work, the public has come to expect more from us than we can deliver.

The centralization of medicine in large hospitals is making the doctor lose his individuality and he is losing his personal contact with his patient. The wholesale administration tests and examinations has made retail medicine look insignificant to the public but when you analyze their results they are no better than ours. Million dollar hospitals equipped with extensive laboratories with trained technicians who administer wholesale functional tests for nearly every organ in the body gives the patient some cause to expect a correct diagnosis. After two weeks of hardship in one of those diagnostic clinics, to be told that "We will have to open you up to find out what is wrong", makes the patient just a little bit skeptical about the profession. Thoroughgoing history taking, and a careful physical examination have not yet been discredited by the laboratory and are still paramount in interpreting the evidence in a correct diagnosis. I believe we can learn more about the chest with a stethoscope than we can in all the x-ray laboratories in the country.

The family doctor knows the history of the patient, including such things as mental and

moral habit and temperament and environment, which may have a significant bearing upon the patient's trouble. The specialist sees the patient come and go, give him a big name and walks away. The family doctor does not get off so easily. He stays to face the music. Research and specialization are a necessary part of medicine. The knowledge of the specialist or research worker is as limited as it is profound in its own field and therefore is capable of many errors. They deal only with a part of the patient while the family doctor deals with the whole patient. He is the fundamental structure of the medical profession today and will be for many years to come.

I would like to quote you a remark of the late Dr. John B. Murphy, made just a short time before his death. "Taking it as a whole, the country doctor averages up in the management of his patients better than the city doctor does, if you take all the country and all the city doctors combined * * * I think furthermore that the country doctor is a better read doctor, he reads more medical literature and less of the newspapers."

Dr. Victor V. Vaughan, who was an eminent scientist, and thirty-five years dean of the medical school at the University of Michigan, in his recent book, "The Memories of a Doctor", said, "Take from scientific medicine the contributions made to it by the country doctor and you rob it of half its glory."

We have in Fayette County two well-equipped general hospitals as well as several private hospitals and I believe that with a little co-operation on the part of the doctors and a willingness to recognize in each other a little ability along certain lines it would not be necessary to send a single patient out of the county for medical or surgical treatment. Much has been written in the lay press about fee splitting, thanks to the efforts of some of our self-appointed leaders who point with scorn to the man to whom they have offered a fee for his patients. With the doctors of Fayette County educated in the best schools in the country there should be no trouble about fee splitting. Any three doctors picked at random in the county could do almost any operation known to general surgery. I believe that the only thing that worries the members of the Fayette County Medical Society is the ever increasing number of cases where there is no fee to split.

The cost of medical education is increasing. Overhead expenses are increasing and as the mortality falls we find more and more work thrust upon us without pay. Free chest clinics,

goitre, heart, Sheppard-Towner, examination of high school athletes, excuses from physical training, excuses for absence from school where there was no doctor in attendance. I recently examined sixteen girls from the well-to-do families of Union township, and later all the girls from the county in their health contest at the County Fair and then was advised by the County Agent that there were no funds available to pay for examinations. The judges who scored the pumpkins and the bulls were all paid. The hospital at the State University is being enlarged and I am told that they treat many hundreds of patients as county charges who are able to pay. Free dispensaries and out patient departments of the city hospitals are competing with each other for business. The Veterans Bureau now treats not only disabled veterans but their whole families, and in addition all war workers. All these things are educating the public to expect everything of a medical nature free and it is the organized big interests of the profession that is bringing it about. The Iowa State Board of Health is sending out bulletins to Parent-Teachers Associations urging the immunization of all school children, with toxin-antitoxin. They have been informed the ridiculously low price at which the board will furnish the serum, and we were solicited by the president of the school board to donate our services free for the immunization of all the children in the public school. We have all been using T. & A. mixture to immunize our patients in private practice with very gratifying results. The small fee it costs our patients to be immunized, only replaces in a very small way those big fees we used to have fifteen years ago for treating diphtheria, typhoid, malaria, summer diarrhea, and a few of those diseases that are almost extinct today. We are all urging this immunization, but I do not believe it should be taken out of the doctor's office and injected in a wholesale fashion into our children as if they were a lot of sheep, untrained men or women. These children should be immunized by their own doctor, after a careful examination. The literature is full of bad results obtained from T. & A. mixture administered to children who had not been previously examined for kidney disease or some of the allergic sensitiveness. I will gladly furnish and administer free the mixture to any worthy poor family in our community, but to give it in a haphazard way and free to those able to pay, is only adding another thing to that ever increasing long list of free service, but will also eventually bring discredit to the medical profession, and teach the coming gen-

eration that the doctor is sort of a town pump. While immunizing 120 school children in my office recently, I discovered that over ten per cent had albuminuria. Probably developmental, but these children were handled carefully. After the immunization over twenty per cent had albuminuria but so far there has been no evidence of active nephritis.

Throughout all these years we have been looking out for the interests of the public, but with the changing of the times our altruistic motives are not only misunderstood by the public but are actually looked upon with suspicion.

I have pointed out some of the reasons, as they appear to me, why we are on the defensive instead of the offensive. I have brought out, with a great deal of pride, the educational qualifications of the doctors of Fayette County. I have given my idea of the reason our standing is not equal to that of our medical friends of half a century ago, and from whom we have learned much.

You may not agree with all my theories. I am not a pessimist nor an organized agitator, but it seems to me that with our increased knowledge and our falling death rate, our standing is lower than it was when the morbidity and mortality was higher.

CLINICAL ASPECTS OF POLIOMYELITIS (INFANTILE PARALYSIS)*

WALTER L. BIERRING, M.D., Des Moines

The following notes were prepared at the request of the State Department of Health.

The department suggests that, on the appearance of the first case of the disease—for this season, the local medical society have a special meeting to consider the subject. It is hoped that these notes and the references given may be of assistance in formulating a program for the meeting.

SYMPTOMATOLOGY AND DIAGNOSIS

There is no longer any contention that poliomyelitis is essentially a disease of the central nervous system. On the other hand it is abundantly proved that it is a general systemic infection which in the latter part of its course is sometimes accompanied by paralysis.

A clinical conception based on the pathology of the disease permits grouping the symptoms under two heads:

1. Those indicative of a systemic reaction to a general infection.

2. Those referable to the specific action of the virus upon the central nervous system.

In a general way the symptoms in the earliest stage of the disease belong to the first group, while the more distinctive symptoms of later development belong to the second; the two groups of symptoms are more or less completely merged, and in this brief statement it is more convenient to refer to them in the usual order of their appearance.

The onset of poliomyelitis may be sudden or insidious, and not infrequently is in two stages, separated by an interval of several days in which there is a remission of symptoms. These remissions correspond to the waves in the temperature curve noted in such cases. Next to fever, which is almost invariably present, the most common symptoms of onset are those of a gastro-intestinal disturbance; vomiting, sometimes with diarrhea, sometimes with constipation. In some epidemics sore throat or symptoms suggestive of influenza are more prominent at the onset. Other usual initial symptoms are general malaise, and, in children old enough to express themselves, headache, which may at times be severe.

Following immediately upon or accompanying these are other symptoms which are more distinctive, namely: a state of restlessness and irritability followed often by an apathetic, drowsy state, with a marked disinclination to move the body or to be moved. Coma, delirium and convulsions are rare. At this time pain, especially when the patient is moved or handled, is quite usual. Especially common and characteristic is a stiffness of the neck and spine, indicated by the position in which the patient takes in bed, by disinclination to bend the spine forward, and by complaint of pain when the spine is flexed by drawing the head forward or by lifting the shoulders and buttocks. The tendon reflexes, if tested carefully on the first day or two of illness usually show some distinct abnormality, being either exaggerated or diminished, or, what is still more significant, some being diminished or completely lost, while others are exaggerated. At the same time, even when there is no actual paralysis, the patient may exhibit more or less marked tremor or ataxia on motion, with a general or localized muscular weakness which is striking.

In the cases in which paralysis develops, this usually follows in about two or three days from the onset of illness, but the interval is variable. Sometimes it does not appear for a week, while in other cases paralysis occurs within the first

*Special State Department of Health News Letter (No. 20) to Physicians.

day of illness, or even, in rare cases, without noticeable symptoms preceding it.

A discussion of the varied distribution and extent of paralysis is not permitted in this brief resume, but it should be noted that it is a flaccid motor paralysis not accompanied by loss of sensation, and that it occurs most frequently in one or more groups of muscles of the extremities; that the legs are more frequently affected than the arms, and that it may affect either one or both sides. More rarely the paralysis affects muscles supplied by cranial nerves, as the facial muscles or the external muscles of the eye. Occasionally the muscles of the palate are affected, in which case the disease may be mistaken at first as diphtheritic paralysis. In fatal cases death is due to paralysis of the muscles of respiration, usually preceded by progressively extensive paralysis of the extremities.

The diagnosis seldom offers difficulties in the cases where paralysis develops, for the sudden onset of flaccid paralysis in the muscles of one or more extremities, without the loss of sensation, and following a brief period of febrile illness, makes a striking and distinctive picture which can hardly be overlooked or mistaken.

In the pre-paralytic stage, and in cases which recover without paralysis, the diagnosis is more difficult, and undoubtedly will often be missed unless the physician has poliomyelitis in mind. In the presence of an epidemic such general symptoms are fever, vomiting or diarrhea, irritability and drowsiness developing suddenly in a child are sufficient to arouse suspicion. And if to these are added the more distinctive symptoms as rigidity and tenderness of the spine, with pain on flexion, definite exaggeration or diminution of tendon reflexes, muscular weakness and tremor or ataxia in movement, a diagnosis of poliomyelitis is justified.

The examination of cerebrospinal fluid obtained by lumbar puncture is a valuable diagnostic aid in the pre-paralytic stage. The marked increase in cell count and globulin is characteristic. Lumbar puncture is a procedure not to be attempted except by one skilled in its technique, and consideration must always be given to the question whether or not the probable benefit to the patient will justify the procedure. In any event, every effort should be made, in all suspicious cases, to arrive at a diagnosis on the history, symptoms and physical signs, and although not always certain, it can be made in a surprisingly large proportion of cases where the examination is conducted with care.

TREATMENT

The treatment of acute poliomyelitis presents certain therapeutic difficulties. The first essential is rest in bed, and the institution of such measures as are applied in other acute febrile disorders. As the infective virus appears to be harbored in the upper respiratory passages, treatment at the onset will include frequent disinfection of the nose and throat with douches or gargles of potassium permanganate (1-5000), peroxide of hydrogen (one per cent) or chlorin containing preparations.

The sole specific treatment consists of injections of immune serum, a method which has been used with moderate success. There is no evidence that drugs have any specific value in the treatment of this disease. Much can be done to mitigate the ultimate sequelae by absolute rest in bed for at least three weeks, and by concentration on the affected muscles. All handling of the limbs which are painful should be avoided. Deformity must be prevented by all means. The paralyzed muscles unable to resist the effect of gravity, tend to become overstretched and the pull of the unparalyzed muscles tends to aggravate this condition. This can best be prevented by appropriate splinting or the use of plaster shells. The help of a competent orthopedist is invaluable in planning this stage of the treatment. When tenderness has subsided and usually by the end of six weeks from the onset, the convalescent stage begins. At this time gentle massage and passive movements can be judiciously instituted.

For the good of humanity it should be stated that active massage or other manipulative measures during the early stage of the disease have no therapeutic purpose and are capable of doing a great deal of harm.

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IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines
Commissioner, State Department of Health

PREVALENCE OF COMMUNICABLE DISEASE

We are now in the season of the year when communicable diseases are at their lowest ebb. We seem to be especially favored this year. Fewer cases of communicable diseases are being reported this summer than is usually the case.

The diseases which have prevailed chiefly during the past month are: scarlet fever and smallpox.

Scarlet fever occurred chiefly in Polk, Blackhawk and Linn counties—counties with large cities.

Smallpox prevailed chiefly in Polk, Boone, Marion, Pottawattamie, Page and Des Moines counties—all located in the southern half of the state. One might think that vaccination is not as effective there as it is in the northern half of the state. The smallpox, is for the most part, of a mild type.

RINGWORM (WITHOUT THE RING) OF THE FEET

We are now in the season of the year when, as the result of the abundant moisture from excessive perspiration, fungi that have a predilection for the skin, grow most rapidly. This will cause more and more patients to go to physicians to seek relieve for a condition which has shown a tremendous increase during the past ten years. I refer to a fungus infection involving chiefly the feet, more especially the parts between the toes, but often also the hands and other parts of the body—accompanied frequently by vesicle formation—sometimes by scaliness or other lesions—also by intense itching.

The term ringworm is really a misnomer since the lesions are, except in a small percentage of cases, not ringshaped. It is called ringworm since the causative organism is similar to the one that produces ringworm. A better term appears to be "epidermatosis" or "tinea dermatitis". Perhaps the former is the better since the condition involves the epidermis.

Many conditions heretofore diagnosed eczema and conditions due directly to increased sweating, are in reality cases of epidermatosis and respond to the appropriate treatment.

"Gym" (gymnasium) itch" involving chiefly the groin, belongs to the same group of diseases.

Ringworm of the feet has been on the increase

for the past ten years. Many of the boys returning from overseas brought it back with them and have, no doubt, been largely responsible for its widespread dissemination. In some communities, more than half of the men are more or less affected. Because of its public health significance, the State Department of Health will, within the next few weeks, release a publicity item regarding it.

Physicians will find the following a splendid article dealing with the subject: Weidman, Fred D., M.D., "Dermatophytosis—The Newer Ringworm", in the Journal of the American Medical Association, February 18, 1928, page 499.

POLIOMYELITIS (INFANTILE PARALYSIS)

Poliomyelitis is seasonally most prevalent during the late summer. The height of the seasonal prevalence—considering the time of first symptoms, is usually late in August; the height of the time of reporting cases, in September; and the height of the mortality curve in late September or October.

Last year we had more than the usual number of cases. This year, a slight increase is being reported from the country as a whole. The first of this season's Iowa cases was reported from Carroll early in July.

Although no unusual prevalence of the disease has been reported in Iowa so far this year, we believe in being forearmed. The State Department of Health has accordingly formulated a very definite program with the idea of preventing any undue spread of the disease. The program is as follows: With the reporting of a single case of the disease from a community, a letter accompanied by a copy of a health message and our bulletin on poliomyelitis is sent to a number of persons occupying strategic positions in the community with the idea of securing community action and effective cooperation on the part of the public with the medical profession and the local health officer.

The "health message" designed for the laity and which it is expected, will be published in the local papers, mentions the following eight procedures that should be observed:

1. Patient should be isolated and quarantined for a minimum period of twenty-one days.
2. The rules of the State Department of Health regarding persons affected and exposed should be carefully followed. It is advisable to also publish them together with other information regarding the disease, in the local newspaper.

3. Avoid large gatherings. This applies especially to children. Children under sixteen should not attend theatres, go to large picnics or other places where there may be careless coughers or sneezers or where food is handled by hands that have not just previously been washed. Theatres are urged to take the initiative in refusing to sell tickets to children.

4. Always cover the nose and mouth with a handkerchief when sneezing and coughing. The germs leave the body chiefly by way of the nose and mouth.

5. Always wash the hands with soap and water before eating. They may have come in contact with articles soiled with the saliva of other persons.

6. Keep flies away from food. The germs of the disease may leave the body by way of the intestinal tract and flies are great visitors of filth.

7. Pasteurize or boil the milk.

8. Whether or not schools should be closed must be decided by the local school authorities, who will, no doubt, be guided by the advice of the local health officer or the formal recommendation of the local medical society. In general it may be said that except in rural communities, where the school is the only place where close association of children is necessary, it is not advisable to close the schools. But where kept open, there should be efficient daily inspection service.

The physicians of the community will receive copies of the several types of publicity material which are sent to the laity together with a copy of an article on the "Clinical Aspects of Poliomyelitis" kindly prepared by Dr. Walter L. Biering of Des Moines. A copy of this article is being submitted to the editor of this Journal with the hope that it will be published.

The health department feels justified in sending out these references to diagnosis and treatment in that early diagnosis and recognition of non-paralytic cases of the disease is essential to effectively prevent the spread of the condition and proper treatment will do much to prevent crippling.

It is suggested that with the appearance of the first case in the community, the physicians hold a meeting. The material and references presented by Dr. Biering may well be the basis of two or three papers.

It is also suggested that with the appearance of several cases, the local health officer, preferably in conjunction with the local medical society, arrange for the dissemination of information regarding the prevention of infantile paralysis either or both through the press or at special meetings.

ELECTROCARDIOGRAMS: THEIR VALUE IN DIAGNOSIS AND PROGNOSIS*

MERRILL M. MYERS, M.D., Des Moines

The electrocardiograph was formerly considered by many physicians as "an expensive toy". It is not so regarded at the present time. It has become a necessary part of the equipment of the present day diagnostician. He finds it most valuable in diagnosis and prognosis.

Whenever an applicant presents himself for examination for life insurance, the examiner must determine whether there is physical impairment, and if so, the nature and extent of such impairment. That is, he makes a diagnosis. Later, upon the report of the examiner, the medical director endeavors to check the diagnosis and determine the prognosis. One of the most difficult problems of modern life underwriting is the exact appraisal of the condition of the heart.

The electrocardiograph, having already established its value in the clinical study of heart affections, should, in selected cases, be found of service to life insurance companies. It will aid in the diagnosis of heart disease and will often assist in correct estimation of life expectancy.

No one can state definitely its future field of usefulness, but from a conservative viewpoint the following three indications for electrocardiograms may be suggested in the selection of life insurance risks.

1. In the examination of normally rated applicants for large policies.

2. In the examination of applicants whom you consider borderline or ratable insurance risks on account of cardiovascular impairments.

3. In the re-examination of policyholders so rated who seek to change their status.

The purpose of this paper is to show a few of the ways by which the clinician is helped through electrocardiographic examinations. Also to suggest practical application of this method to your work, and to urge your consideration of this new means of cardiac study.

Before speaking of its advantages one should admit the limitations of this instrument of precision. It gives but little information regarding valve changes, except indirect evidence when such is associated with myocardial impairment. It will not solve the mysteries of cardiac murmurs. Endocardial defects, therefore, are seldom proven by graphic tracings. Nor will one learn from them much about pericardial or aortic disease.

*Read before the Medical Section of the American Life Convention, St. Louis, Missouri, May 2, 3, 4, 1928.

These well defined limitations in the use of the electrocardiograph should be kept in mind.

What then can one rightly expect from this apparatus? The secrets of the myocardium and the mechanism which controls cardiac contractions are those most easily disclosed by electrocardiograms.

A brief statement of certain important features concerning the heart revealed by graphic tracings may be given.

1. The record of contractions of both auricles and ventricles are shown, and whether they are working in normal sequence.

2. When the structures which control the heart's contraction are normal that fact is disclosed; whereas, if this mechanism is out of order the tracing will reveal it. Physicians everywhere still have too little appreciation of the importance of the minute factors which originate and control the heart beat.

3. The least degree of heart block between auricles and ventricles appears in the tracings. When the bundle of His conducts the contraction impulse slowly heart impairment exists. Graphic tracings may be the only means of detecting this abnormality.

4. All forms of arrhythmias may be identified. Thus one can determine whether an irregularity is of serious moment or may be unimportant.

5. Heart tracings give evidence of disproportion in the size of the ventricles, called "preponderance" of either the left or the right ventricle. Hypertension is often followed by left ventricular preponderance. The blood pressure itself may appear insignificant in a given case while the preponderance shown in his tracing suggests hypertension of long standing.

6. Tachycardia, as well as bradycardia, often difficult to interpret, are simplified when recorded in this way. There are several extracardiac causes for tachycardia, such as infections, toxic states, and nervousness. Such tachycardias are usually the sinus or sino-auricular type, for the whole mechanism is normal, the sino-auricular node, or pacemaker, is simply originating impulses faster. Tracings do not indicate the outside factor which is increasing the rate, but will help to rule out the heart as a primary cause. Intracardiac disturbances may also cause accelerated rate, due to the development of such conditions as paroxysmal tachycardia, auricular flutter or auricular fibrillation. In such cases one may rightly question the integrity of the heart. Brady-

cardia in a similar way may be caused by extracardiac or intracardiac conditions. Electrocardiograms are of material assistance in determining the meaning of fast or slow heart action.

7. Diseases of the myocardium are of special importance to you. Mackenzie's admonition to give first consideration to the heart muscle is growing more significant in the mind of the clinician. The electrocardiograph is playing no small part in teaching fundamental principles about the heart muscle in health and disease. By means of the tracings it is possible to note early evidence of myocardial impairment. In some cases they will also assist in estimating the extent of the muscle changes.

8. The coronary arteries are now in the limelight. The incidence of angina pectoris and coronary occlusion seems to be increasing. The applicant with coronary sclerosis, desirous of obtaining large protection, may conceal his symptoms. The examiner, however careful he tries to be, may report normal heart size, normal blood-pressure, and all other features of the cardiovascular examination negative. It is well recognized that the physical examination in a considerable number of persons who have angina pectoris may reveal no abnormalities. Characteristic changes in the electrocardiograms of some of these doubtful cases will give evidence of previous attacks due to coronary artery disease. These alterations of the graphic tracings are probably the result of myocardial impairment following decreased coronary blood flow. Such a case will be referred to later.

Skeptics regarding the practical usefulness of the electrocardiograph should make careful inquiry about these two phases of the subject, namely, its value in disclosing evidence of impairments of the muscle of the heart, and of the coronary arteries.

The statements expressed here are believed to be conservative. Those who use the electrocardiograph with the exception of a few enthusiasts, recognize its limitations. It is known that there is an occasional instance where the heart may be diseased, and its tracing normal. The apparatus is not infallible. It does not supplant established methods of examination. But if used as an adjunct to a complete clinical examination, the electrocardiograph will reduce the number of diagnostic errors and help to separate those cardiac disturbances of serious prognostic importance from those of no consequence.

SLIDES¹

The object in presenting the slides is two fold:

1. To give some of the principles of electrocardiography.

2. To show a few typical electrocardiograms.

Some of the slides are presented through the courtesy of Doctor Paul D. White, cardiologist at the Massachusetts General Hospital.

1. Diagram of the nodes and conducting system of the heart.
2. Diagram representing the relationship of the heart to the three leads.
3. The electrocardiograph.
4. The electrocardiograph.
5. The camera.
6. The cardiac arrhythmias.
7. Normal electrocardiogram.
8. Normal Lead 11.
9. Sinus arrhythmia.
10. Premature and interpolated ventricular contractions. Electrocardiogram and simultaneous radial tracing.
11. Auricular premature contractions.
12. Partial auriculo-ventricular heart block.
13. Partial auriculo-ventricular heart block, with dropped beats. Lead 11.
14. Complete auriculo-ventricular heart block. Lead 11.
15. Complete auriculo-ventricular heart block.
16. Auricular fibrillation.
17. Auricular fibrillation. Lead 1.
18. Auricular flutter.
19. Auricular paroxysmal tachycardia.
20. Left ventricular preponderance.
21. Bundle branch block.
22. Abnormality of T waves, and other evidence suggesting myocardial impairment.

This tracing is from a man who desired a large policy and who concealed his condition. He was forty-four years old, a lumber dealer. He applied for \$50,000 protection from a large eastern company, which requested the examination on April 3, 1927. His history disclosed an attack simulating angina pectoris about six years before this, on December 27, 1920. He denied further at-

1. Electrocardiograms typical of the various conditions were shown. They will not be reproduced in this Journal. The reader is referred to such books as the following: "The Mechanism and Graphic Registration of the Heart Beat", Thomas Lewis; "Clinical Electrocardiography", Thomas Lewis; "Clinical Aspects of the Electrocardiogram", Harold E. B. Pardee; "Clinical Electrocardiography", Fredrick A. Willius; and, "Circulation in Health and Disease", Carl J. Wiggers.

tacks. The physical examination was entirely negative and an x-ray film of the heart showed it to be normal in size and shape. The tracing is interpreted as follows: the time marker was not running, the rhythm is normal, the auricular waves are normal, there is no evidence of auriculo-ventricular heart block, there is slight thickening of the QRS complexes in all leads, the T waves in all leads are practically flat, and there probably is slight left ventricular preponderance. The outstanding features of this tracing are the flat T waves in all leads. The following statement was made to the company. "These are the electrocardiographic findings often noted in patients with myocardial weakness", and on the basis of the previous history and this graphic record his application was refused. Shortly thereafter another large eastern company accepted him for a \$75,000 policy. He died suddenly, June 21, 1927, about two months afterwards, presumably from coronary occlusion. The company which rejected him did so largely because of this electrocardiogram.

SUMMARY

Electrocardiograms are of distinct service to physicians in the clinical study of heart diseases. The limitations of the apparatus are mentioned. Certain important features about the heart revealed by graphic tracings are given. They are: 1, the record of contraction of auricles and ventricles; 2, the normal or abnormal condition of the mechanism controlling the heart beat; 3, the least degree of heart block between auricles and ventricles; 4, all forms of cardiac arrhythmias; 5, "preponderance" of the right or the left ventricle; 6, the intracardiac causes of tachycardia or bradycardia; 7, myocardial impairment, in some cases; and 8, coronary artery disease, in some cases.

Slides have been shown to illustrate some of these points.

Life insurance underwriters should find electrocardiograms valuable; 1, in the examination of normally rated applicants for large policies; 2, in the examination of borderline or ratable insurance risks on account of cardiovascular impairments; and 3, in the reexamination of policyholders so rated who seek to change their status.

ATTENTION! *The September Journal will contain special articles and a special dedication. Be sure to read the September Journal.*

The Journal of the Iowa State Medical Society

RALPH R. SIMMONS, Editor.....Des Moines
DAVID S. FAIRCHILD, SR., Editor-Emeritus.....Clinton

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Address all communications to the Editor of the
Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVIII August, 1928 No. 8

THE DIAGNOSIS OF TUBERCULOSIS

The Early Diagnosis campaign sponsored by the national, state and local tuberculosis associations last March brought out several interesting situations. First, that thousands of people have active tuberculosis unrecognized by the patient or his family or even his physician. Second, that the medical profession is not any too well prepared to make an exact diagnosis of early pulmonary tuberculosis. This latter point directs our attention to the quality of clinical training given the medical student of the present day, and his ability to arrive at definite conclusions from the evidence submitted or obtainable in a given case. Out of appreciation of this evident need have arisen the post-graduate courses in diseases of the heart and lungs, such as the very successful one given in June at Iowa City and Oakdale.

Allen K. Krause¹ recently called our attention to the relative importance in diagnosis of two such fundamental measures as repeated examination of sputum and the specific reaction of the diagnostic tuberculin test. It would seem unnecessary to emphasize these procedures but in the experience of this distinguished physician in the field of tuberculosis, the advice is necessary. The need of educational propaganda for more examinations of sputa in suspected tuberculosis was exemplified by a recent experience at our

State Sanatorium at Oakdale, where tubercle bacilli were first demonstrated in the sixty-first specimen of sputum and in another case in the seventy-fifth specimen. Present day conception of the specificity of tuberculin reaction is generally admitted and it is necessary to understand only certain broad principles, viz: The local reaction means a tuberculous infection, the general reaction indicates the degree of activity and the focal reaction points out the location of the tuberculous disease.

An elaboration of the case analysis system in the diagnosis of pulmonary tuberculosis at the Trudeau Sanatorium from the history, physical signs, x-ray and laboratory procedure, resulted in the so-called five essential data or cardinal points of Brown² which are now stated as follows:

1. Persistent rales in upper one-half of chest.
2. Parenchymatous x-ray lesion.
3. Tubercle bacilli in the sputum.
4. An unexplained history of hemoptysis of a teaspoonful or more, together with an unexplained history of pleurisy with effusion.
5. Focal reaction as determined by x-ray after the subQ tuberculin test of 10 mgm. (once repeated) of O.T. or less. Symptoms must have been present at some time.

The use of this method leads to far greater accuracy in interpretation of clinical evidence and simplifies the most difficult problem in medicine—the early diagnosis of pulmonary tuberculosis.

THE SECOND REUNION OF THE GRADUATES OF THE KEOKUK MEDICAL SCHOOL

The gathering of the old students at Keokuk June 7, 1928, constituted an element of interest to the medical profession of Iowa, in view of the fact that medical education in Iowa began at Keokuk in 1850 with the opening of the College of Physicians and Surgeons. This organization of the school constitutes a part of the early history of the state.

With the passing of the pioneer across the Mississippi came the necessity for medical service. Medical education could not then be what it is now for very obvious reasons, but there was a need of real practical service and the number of students that gathered at Keokuk for many years showed how well the organizers and faculty realized the training that fitted them for the best service.

1. Krause, Allen K.: Remarks on the Laboratory Diagnosis of Pulmonary Tuberculosis, Amer. Rev. Tuberc., 1928, xviii, 51.

2. Brown, Lawrason: Annual Report of the Trudeau Sanatorium Medical Board, 1926.

The school has an interesting history. Organized first at La Porte, Indiana, in 1846, passed to Madison, Wisconsin, in 1847, then to Rock Island, Illinois, in 1848, to Davenport, Iowa, 1849, and on to Keokuk in 1850. When the medical student of today reflects on medical education as represented by the Keokuk school, he realizes at how rapid a pace medical education has traveled. The medical schools of the east were no better, no worse. Hospitals and laboratories were not a part of a medical school; bedside practice was the standard.

We go a long way to pay tribute to the memory of men who created great things. We build monuments to commemorate great battlefields that may have decided the fate of nations, and so it seems appropriate and fitting that the old students should visit the birthplace of Iowa medicine, to mark at least in the annals of Iowa medicine the place from which pioneer medicine spread to the utmost borders of the state.

The "Gate City" was generous in its comments and from the numbers printed on June 7 and 8 we are able to record the most important events of the occasion.

D. S. F.

The program was the following:

Address—Dr. F. B. Dorsey, Sr., Faculty C.P. and S., Keokuk.

Address—"The Time and the Place", Dr. C. E. Ruth, Faculty K.M.C., Des Moines, Iowa.

Address—"The Country Doctor", Dr. J. M. Trigg, Student C.P. and S., St. Louis, Missouri.

Address—"Remember Way Back When", Dr. B. L. Gilfillan, Student K.M.C., C.P. and S.

Address, "The University and Medical Education", Dr. H. S. Houghton, Medical Department S.U.I., Iowa City, Iowa.

Local doctors assisted President F. M. Fuller in planning for this big event. Dr. O. T. Clark was general chairman of the reunion committee with Dr. C. R. Armentrout, Dr. F. B. Dorsey and Dr. R. M. Lapsley as his assistants. Dr. B. L. Gilfillan was in charge of enrollments, and the clerical force assisting him was composed of Miss Alvera Sorenson, Miss Tessie Cooper and Miss Margaret Morrow.

Keokuk was selected as the site for the reunion of the old students and these will be held every two years.

Dr. A. R. Hannah, of Peoria, was elected president; Dr. J. M. Trigg, of St. Louis, vice-president, and Dr. C. R. Armentrout, of Keokuk, secretary-treasurer, at the business session.

Dr. Frank M. Fuller is the retiring president, and was given a vote of appreciation, and the Keokuk doctors given a rising vote of appreciation for their entertainment.

The doctors who registered for the reunion were:

- U. G. Buck, Rothville, Missouri, 1896, K.M.C.
- H. C. Payne, Pella, Iowa, 1897, K.M.C.
- C. I. Fox, Pella, Iowa, 1901, K.M.C., C.P.S.
- C. M. Henry, Farson, Iowa, 1897, K.M.C.
- J. M. Trigg, St. Louis, Missouri, 1893, C.P.S.
- J. A. Bortz, Quincy, Illinois, 1892, K.M.C.
- A. J. Blickham, Quincy, Illinois, 1891, K.M.C.
- J. R. Northcutt, Knox City, Missouri, 1878, C.P.S.
- Henry S. Houghton, Iowa City, Iowa, dean of College of Medicine, S.U.I.
- S. K. Davis, Libertyville, Iowa, 1888, C.P.S.
- F. F. Winsell, Fairfield, Iowa, 1895, K.M.C.
- Edward Dodd, Cairo, Nebraska, 1903, K.M.C., C.P.S.
- J. C. Moore, Eldon, Iowa, 1905, K.M.C., C.P.S.
- B. F. Campbell, Burlington, Iowa, 1897, C.P.S.
- W. E. Lawhead, Burlington, Iowa, 1882, C.P.S.
- H. B. Ames, Alva, Illinois, 1901, K.M.C., C.P.S.
- J. L. Marder, St. Louis, Missouri, 1901, K.M.C., C.P.S.
- O. W. McGrew, Columbus Junction, Iowa, 1905, K.M.C., C.P.S.
- O. T. Clark, Keokuk, Iowa, 1908, K.M.C., C.P.S.
- W. B. Eicher, Peoria, Illinois, 1898, K.M.C.
- J. C. Kepler, Kirksville, Iowa, 1905, K.M.C., C.P.S.
- W. Blinder, Peoria, Illinois, 1904, K.M.S., C.P.S.
- L. E. Scott, Keokuk, Iowa, 1903, Keokuk School of Pharmacy.
- C. A. Runyon and wife, Hamilton, Illinois, 1884, C.P.S.
- F. B. Parker and three, Ursa, Illinois, 1893, K.M.C.
- J. A. Plumer, Trivoli, Illinois, 1889, C.P.S.
- L. B. Calbreath, Keokuk, Iowa, 1904, K.M.C., C.P.S.
- R. A. Henry, Peoria, Illinois, 1894, K.M.C.
- A. A. Justice, Lancaster, Missouri, 1905, K.M.C., C.P.S.
- W. Rankin, Keokuk, Iowa, 1903, K.M.C., C.P.S.
- Earl Cooper, Augusta, Illinois, 1905, K.M.C., C.P.S.
- C. A. Kabrick, Grandview, Iowa, 1906, K.M.C.
- W. W. Houston, Goodhope, Illinois, 1901, K.M.C.
- P. H. Dechow, Kinderhook, Illinois, 1906, K.M.C., C.P.S.
- R. M. Lapsley, Keokuk, Iowa, 1890, C.P.S.
- C. W. Gardiner, Mt. Pleasant, Iowa, 1894, C.P.S.
- G. J. Goodin, Detroit, Illinois, 1907, K.M.C., C.P.S.
- W. E. Davidson, Liberty, Illinois, 1901, K.M.C., C.P.S.
- S. P. Peacock, Pittsfield, Illinois, 1896, K.M.C.
- C. H. Hart, Livonia, Missouri, 1902, K.M.C., C.P.S.
- J. E. Lee, Venice, Illinois, 1902, K.M.C., C.P.S.
- J. P. Mathias, Mediapolis, Iowa, 1902, K.M.C., C.P.S.

DEPUTY COUNCILOR SYSTEM TO BE CONTINUED

On account of the highly successful work of the Deputy Councilors during the past year, the Council has determined to continue the system. Appointments are now being made for every county society in the state, and it is the plan of the Council to make these so carefully that it will be possible to delegate to each deputy within his county the full rights and prerogatives of a councilor.

It will be his privilege and responsibility to represent the state council in his local society, and to represent his county society before the Council. In these times when such vital issues for the public and the profession are at stake, it will also be the work of the deputy councilor to make contact with the public and promote interest and activity in applied medical sciences in accordance with the constitutional duties of the Council. A full list of the deputy councilors will appear in the Journal as soon as the appointments are completed.

- C. R. Blankenship, Forrest City, Illinois, 1907, K.M.C., C.P.S.
 J. W. Blan, Cisco, Illinois, 1902, K.M.C., C.P.S.
 J. C. Taylor, Hamilton, Illinois, 1898, K.M.C.
 O. C. Ford, Lima, Montana, 1876, C.P.S.
 G. L. Cremeens, Springerton, Illinois, 1895, K.M.C.
 C. C. Cockran, Jacksonville, Illinois, 1897, C.P.S.
 J. V. Beghtol, Hastings, Nebraska, 1877, C.P.S.
 G. W. Sampson, Upper Sandusky, Ohio, 1880, C.P.S.
 H. W. Oyler, Spickard, Missouri, 1901, K.M.C., C.P.S.
 E. C. White, West Brooklyn, Illinois, 1894, K.M.C.
 J. R. Bridges, Kahoka, Missouri, 1888, C.P.S.
 F. M. Roseberry, Keokuk, Iowa, 1897, C.P.S.
 F. E. Strickling, Decatur, Illinois, 1907, K.M.C., C.P.S.
 J. Miller, Warsaw, Illinois, 1895, K.M.C., C.P.S.
 W. M. Haggett, Nauvoo, Illinois, 1887, C.P.S.
 P. E. Hanes, Keokuk, Iowa, 1900, K.M.C., C.P.S.
 J. E. Camp, Augusta, Illinois, 1880, C.P.S.
 C. E. Lovett, Lineville, Iowa, 1907, K.M.C., C.P.S.
 H. W. McKim, LaVelle, Missouri, 1887, K.M.C.
 G. E. Pumphrey, Carthage, Illinois, 1897, K.M.C.
 F. M. McCrea, Eddyville, Iowa, 1874, C.P.S.
 W. F. Justice, Lancaster, Missouri, 1874, C.P.S.
 B. F. Stewart, Cambridge, Nebraska, 1900, K.M.C., C.P.S.
 J. A. Shacklett, Ethel, Missouri, 1898, C.P.S.
 W. W. Ellis, Marceline, Missouri, 1895, K.M.C.
 H. O. Strosnider, St. Francisville, Missouri, 1905, K.M.C., C.P.S.
 J. A. Miller, Hamilton, Illinois, 1881, C.P.S.

- E. M. Buck, Montrose, Iowa, 1896, K.M.C.
 W. F. Harvey, Rushville, Illinois, 1897, C.P.S.
 O. B. Yarnell, Wenona, Illinois, 1902, K.M.C., C.P.S.
 R. S. Sheets, Carthage, Illinois, 1908, K.M.C., C.P.S.
 C. Wirth, Davenport, Iowa, 1893, C.P.S.
 E. E. Kirby, Machinaw, Illinois, 1896, C.P.S.
 C. R. Russell, Keosauqua, Iowa, 1898, K.M.C.
 E. E. Sherman, Keosauqua, Iowa, 1898, C.P.S.
 W. T. Ziegler, Canton, Illinois, 1896, C.P.S.
 Isaac Traverse, Fort Madison, Iowa, 1893, K.M.C.
 J. J. Kelley, Burlington, Iowa, 1901, K.M.C., C.P.S.
 A. J. Thornber, Burlington, Iowa, 1896, K.M.C.
 W. H. Mott, Farmington, Iowa, 1900, K.M.C., C.P.S.
 E. R. Newlan, Drakesville, 1904, K.M.C., C.P.S.
 H. C. Young, Bloomfield, 1891, K.M.C.
 R. C. Callihan, Luray, 1891, K.M.C.
 J. F. Thompson, Donnellson, 1902, K.M.C., C.P.S.
 J. H. Chittum, Wapello, Iowa, 1897, K.M.C.

FIRST WOMEN'S AUXILIARY ORGANIZED

The formation of a Women's Auxiliary by the more than eighty wives of physicians attending the Twin Lakes District meeting, was an outstanding event of the July 19th session of that society. Laymen attending medical meetings frequently comment upon the number of physicians' wives present and their active, intelligent interest in what goes on. The American Medical Association is urging and furthering the formation of Women's Auxiliaries, so that several states now have such auxiliaries in every county and a state organization, constitution, annual meeting, officers, etc. Not only the social activities, but the power and service of organized medicine will be greatly increased by such auxiliaries in Iowa, and the following account of the activity at Twin Lakes is printed in the hope it may serve as an inspiration to others in the state of Iowa.

"Mrs. Moorehead reported to the Society that a Women's Auxiliary of the Twin Lakes District Medical Society had been organized, and that it was the intention of this organization to assume the responsibility of serving the refreshments at future assemblies. This new suggestion was very happily received as the former caterers were asking for additional pay. The officers of said auxiliary were reported as Mrs. G. C. Moorehead, Ida Grove, president; Mrs. D. H. Hopkins, Glidden, vice-president; Mrs. Walter Anneberg, Carroll, secretary. (The Society was reminded no treasurer had been thought necessary.) It was moved, seconded and carried that the Women's Auxiliary officers be honorary members of the

executive committee, with the idea that they as physicians' wives would help secure the attendance of their husbands at committee meetings."

A DIAMOND JUBILEE HONORS FORMER PRESIDENT

Mrs. D. E. Graham, Ottumwa

On Tuesday evening, March 6, 1928, the Ottumwa Hospital Alumnae Association sponsored a delightful celebration. The occasion was the seventy-fifth anniversary of Dr. S. A. Spilman's birth. In every sense of the word it was a diamond jubilee.

Lured by the promise of a family party at the Y. W. C. A. Dr. Spilman entered the lobby to find it filled with friends, the nurses, the doctors and their wives, his own family, all in the particularly festive mood induced by the success of a surprise. It had been a day of surprises for the Doctor, the great interest of friends as shown by flowers and gifts heaped upon him and by the unexpected arrival of his daughter, Mrs. Bowen, from California.

In the dining room a spring garden was effected by the baskets of tulips, primroses, hyacinths, daffodils and vases of roses used on the horseshoe table at which the one hundred twenty guests were seated. The real birthday atmosphere pervaded the room when the cake ablaze with tiny candles was carried down the long aisle and presented to Dr. Spilman. The character of alert, capable physician was never caught napping; he had at all times the spontaneous, genuine response of the unrehearsed acknowledgment.

Dr. C. B. Taylor, as toastmaster, established the tone of genial affectionate fraternity in his introductions of the persons on the program. Mrs. Bertha Wormhoudt Fisher sang beautifully two selections. Miss Elizabeth Webb read "Home" and "The Naughty Little Clock" with musical accompaniment.

Mrs. Estella Akers Sisk, Miss Mayme Reynolds and Miss Alice Slaughter paid the tribute of the nurses who had always found in Dr. Spilman the helpful friend and presented him with a silver loving cup.

Dr. W. C. Newell looked into the future; he anticipated the time when the Doctor, like our president, might not "choose to run" and presented him with a pocket knife for whittling. One glance at Dr. Spilman pushes the whittling to a remote date.

In presenting Columbia roses, the gift of the present Hospital Staff, Miss Bringold, the superintendent, voiced the appreciation of the staff and spoke of the admiration all members of the institution have for Dr. Spilman.

Dr. Herrick looked backward to nineteen hundred when as a young physician he came to Ottumwa and found in Dr. Spilman the willing advisor. The friendship of the two men has endured through the years. "My best friend among the doctors", Dr. Herrick declared. He reviewed Dr. Spilman's activities in the county and state medical societies, recalled the fact that at seventy-two Dr. Spilman was the state president.

Dr. Vinson, too, looked backward in his toast, "Way Back When" a young lad went to Dr. Spilman expecting to be tortured and remained to praise the man's gentleness and kindliness. Lest the atmosphere become too saccharine Dr. Vinson indulged in some delightful banter at the expense of the—"nose and throat men who are so opposed to writing papers for the medical society", the young practitioner who sought to conceal his youth by a gorgeous pink Van Dyke, the musical prodigy from Kirkville, the ardent advocates of Cæsarian operation who were beaten by the stork and so on—"Way Back When" as always in skillful hands was a delightful blend of humor and regard.

In his "congratulatory salutatory" rather than valedictory Dr. Edgerly painted an alluring picture of the delights, advantages and achievements of age. Referring to that ill-advised remark of Sir William Osler that men should be chloroformed at sixty Dr. Edgerly recounted the benefactions mankind would have missed had the suggestion been carried out literally. Much of the best work of Benjamin Franklin, Balfour, John D. Rockefeller, Edison, Pope Leo XIII, John Wesley, Thiers, Clemenceau, Elihu Root, Chauncey Depew and Von Hindenburg would have been lost to a needy world. There would have been no "Crossing the Bar", since Tennyson wrote the poem when past eighty.

The specific application of the theory coupled with much of compliment to Dr. Spilman was made during a dry clinic—dry only as regards blood letting and Mr. Volstead's well known act. The examination was extensive and thorough, also authentic, as it was made under the meticulous microscope of the office mate of fifteen years. The review of Previous Illnesses brought to light some childhood diseases, two gall bladder operations and typhoid. Physical Examinations showed hair to be white, face wrinkled—"the

wound stripes of service". Heart and lungs were sound. Abdominal scars resembling a road map of Iowa were discovered. Tonsils and appendix had been retained. Habits were of the best, moderation was exercised in all pursuits, spirit kindly, patient was religious, patriotic, studious, fond of travel. Laboratory tests showed the blood to be warm and red, lots of Fe. Blood pressure was 130/80 showing the patient to be only thirty years of age.

According to the x-ray examination the gall bladder was not visible; the stomach had good capacity and good emptying time. The heart was enlarged to the right; it seemed to take in all humanity, yet did not obscure the spine which was upright and contained plenty of mineral salts.

The mental findings were particularly young as regards the patient's interest in the community, his taste in reading; he did not make the mistake of retiring from active practice which he is wise enough to interrupt frequently by recreation and travel. When there is need Dr. Spilman is able to drive all night and meet the next day's duties with more vigor and enthusiasm than many of his colleagues younger by years.

Physically the man was well nigh perfect; morally as well, according to popular repute. The acid test of the family, brother, sister, wife, daughter, son, failed to reveal sin greater than watermelon stealing in youth and self-forgetfulness in manhood.

With this enviable record Dr. Edgerly predicted that the honored guest would be useful and vigorous at one hundred; the argument was wittily convincing; the tribute was sublime.

Dr. D. T. Rambo, president of the Wapello County Medical Society, in an indulgent manner referred to some appointments Dr. Spilman had failed to keep and presented the gift of the doctors, a watch of "reliable make".

Miss Martha Bell, president of the Alumnae Association, read letters and telegrams which had been sent from doctors, nurses, relatives, friends, the editor of the State Medical Journal, the president of the State Society, each eager to add notes of praise, appreciation, assurances of friendship to Dr. Spilman.

When Dr. Taylor suggested that Mrs. Spilman might have some light to shed on her husband's past or present that would be illuminating, she modestly stated that she had thought all evening how delightful it was to be "Next Door to Greatness".

Dr. Spilman, the benevolent, amiable dean of the medical fraternity, responded to the lavish

affection of his friends in a most gracious manner. He took that opportunity in reminiscence to confess to the hidden sin of jealousy in the earlier years of his practice. He showed the futility of harboring resentment.

Inadvertently he revealed the secret of his success—a hopeful vision of the future and of his world, the habit of untiring, faithful work in which he has taken great joy.

All present stood to show their appreciation of the honored guest's worth as reflected in his unassuming words.

As an appropriate close to a delightful birthday party the company joined in singing "Auld Lang Syne".

The Ottumwa doctors feel especially grateful to the Alumnae Association for the kindly thought which prompted the celebration and especially for the opportunity of presenting to Dr. Spilman diamonds of great beauty and value—their esteem, their enduring friendship and heartiest wishes for many more years of usefulness.

DR. C. E. CRAWFORD HONORED

Some time ago in a notice of the Linn County Medical Society we mentioned Dr. G. E. Crawford of Cedar Rapids, whose fiftieth anniversary of practice was celebrated by the Society. Dr. Crawford has passed through a period of remarkable activities, experiences and developments, which the mass of people ignore, as if the present had always existed. The multitude seem to feel that nature has revealed its secrets to daring adventurers, and explorers for their special benefit, to be employed by them in a most prodigal manner, and the struggle is to see who gets the most out of them. Dr. Crawford has witnessed these things with the calmness of one who has secured his place under different conditions, with less scars of battle, and less bitterness of spirit. We can imagine that men of his time and generation will carry their residual years with more pleasure and satisfaction. It is often said that one of the gains of the generation is the increased length of life, forgetting that the gain is in the first years of life, which is almost offset by the increased death rate in the later years. It is no fault of scientific medicine or of health service that it is so, but the rash and extravagant ways of living so often indulged in, as the outcome of science and invention in furnishing the various means of gain and enjoyment. We have at our hands means of production which will give us more leisure, except perhaps to the medical practitioner, who must always be on duty, and this is our own fault. If we could only work in harmony with and put greater trust in our associates how much less would be our worry and more frequent would be our vacations and periods of rest. Dr.

Crawford would not like to see the world go back to his earlier days of practice but no doubt would like to see the world go forward on saner and better lines.

DRS. FAY AND BURCHAM TO CALIFORNIA
BY AEROPLANE

On July 1, Drs. O. J. Fay, chairman of the Board of Trustees, and Thomas Burcham, chairman of the Committee on Public Policy and Legislation, flew in Boeing planes from Des Moines to San Francisco. The trip was planned partly as a celebration of Dr. Fay's birthday, and partly a vacation outing. Their course followed the established air routes, stopping for a change of pilots or refueling at Omaha, North Platte, Cheyenne, Rock Springs, Salt Lake City, Reno, Sacramento, and Oakland. In San Francisco, Dr. Fay's automobile was waiting for them, and in it the two doctors drove back to Des Moines, visiting Salt Lake City, Yellowstone Park, Cheyenne, and other points of especial interest along the way.

The trip from Des Moines to San Francisco, a distance of 1800 miles, consumed but eighteen hours. The return trip was made in less than two weeks, the doctors arriving back in Des Moines on July 13.

Both Dr. Fay and Dr. Burcham were so impressed by the beauty and grandeur of the trip by aeroplane, that a joint article prepared under their personal supervision appeared in the Des Moines Tribune-Capital under date of July 18, describing the thrills, pleasures, and possibilities of aeroplane travel. This article is particularly commended to the attention of the Journal readers, since the vivid and realistic descriptions, spreading as they do a panorama of beauty before the mind's eye, furnish a literary treat and reveal journalistic proclivities rarely found except in professional writers.

NOTICE OF EXAMINATION FOR ENTRANCE
INTO THE REGULAR CORPS OF THE
UNITED STATES PUBLIC HEALTH
SERVICE

Examinations of candidates for commission as assistant surgeon in the Regular Corps of the U. S. Public Health Service will be held at the following named places on the dates specified:

- At Washington, D. C.....November 5, 1928
- At Chicago, Illinois.....November 5, 1928
- At New Orleans, Louisiana.....November 5, 1928
- At San Francisco, California.....November 5, 1928

Candidates must be twenty-three years and not over thirty-two years of age. They must have been graduated in medicine at a reputable medical college, and have had one year's hospital experience or two years' professional practice. They must satisfactorily pass oral, written and clinical tests before a board of medical officers, and undergo a thorough physical examination.

Successful candidates will be recommended for appointment by the president, with the advice and consent of the senate.

Requests for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

ADVANCE PROGRAM OF INTER-STATE
POST-GRADUATE ASSEMBLY OF
NORTH AMERICA

Atlanta, Georgia
October 15, 16, 17, 18 and 19, 1928

Monday, October 15

Diagnostic Clinic—Dr. C. J. Miller, New Orleans, Louisiana.

Diagnostic Clinic—Dr. W. A. Bastedo, New York, New York.

Diagnostic Clinic—Dr. J. M. T. Finney, Baltimore, Maryland.

Intermission

Diagnostic Clinic—Dr. J. S. Horsley, Richmond, Virginia.

Diagnostic Clinic—Dr. D. C. Balfour, Rochester, Minnesota.

Diagnostic Clinic—Dr. L. R. DeBuys, New Orleans, Louisiana.

Noon Intermission

Diagnostic Clinic—Dr. J. F. Erdmann, New York, New York.

Symposium on Gastro-Intestinal Diseases

"Methods of Diagnosing Diseases of the Esophagus"—Dr. P. P. Vinson, Mayo Clinic, Rochester, Minnesota.

"Principles of Gastric Surgery"—Dr. D. C. Balfour, Rochester, Minnesota.

Intermission

Symposium on Gastro-Intestinal Diseases, Continued

"Recent Advances in the Treatment of Intestinal Obstruction"—Dr. T. G. Orr, Kansas City, Missouri.

"Diverticulitis and Its Surgical Treatment"—Dr. J. M. T. Finney, Baltimore, Maryland.

"Diagnosis of Diverticulosis and Diverticulitis"—Dr. J. T. Case, Battle Creek, Michigan.

"Some Principles of Intestinal Surgery with Especial Reference to the Physiology of the Intestines"—Dr. J. S. Horsley, Richmond, Virginia.

"The Clinical Aspect of Congenital Mesenteric Malformations in Children"—Mr. G. E. Waugh, M.D., F.R.C.S., London, England.

"Chronic Appendicitis"—Dr. J. B. Deaver, Philadelphia, Pennsylvania.

"Cancer of the Colon"—Mr. Charles Macauley, F.R.C.S., Dublin, Ireland.

Dinner Intermission

Symposium on Gastro-Intestinal Diseases, Continued

"Mucous Colitis"—Dr. W. A. Bastedo, New York, N. Y.

"Malignancy of the Large Intestine"—Dr. J. F. Erdmann, New York, N. Y.

Address—Dr. J. S. McLester, Birmingham, Alabama.

"Observation on the Functioning Human Breast"—Dr. L. R. DeBuys, New Orleans, Louisiana.

"A General Consideration of Cesarean Section"—Dr. C. Jeff Miller, New Orleans, Louisiana.

Address—Sir James Dundas-Grant, F.R.C.S., London, England.

Tuesday, October 16

Diagnostic Clinic—Dr. F. W. Marlow, Toronto, Canada.

Diagnostic Clinic—Dr. J. O. Polak, Brooklyn, N. Y.

Diagnostic Clinic—Dr. H. H. Cabot, Ann Arbor, Michigan.

Intermission

Diagnostic Clinic—Dr. J. B. Deaver, Philadelphia, Pennsylvania.

Diagnostic Clinic—Dr. Wm. E. Lower, Cleveland, Ohio.

Diagnostic Clinic—Dr. W. B. Coley, New York, N. Y.

Noon Intermission

Diagnostic Clinic—Dr. P. P. Vinson, Rochester, Minnesota.

Symposium on Malignant Diseases

"The Importance of Return to the Principles of Halsted's Complete Operation for Cancer of the Breast"—Dr. J. C. Bloodgood, Baltimore, Maryland.

"Diagnosis, Prognosis and End-Results of Bone Sarcoma"—Dr. W. B. Coley, New York, N. Y.

Intermission

Symposium on Diseases of the Genito-Urinary Tract

"Relation of Urologic Diseases to Internal Medicine"—Dr. H. G. Beck, Baltimore, Maryland.

"Genito-Urinary Tuberculosis"—Dr. H. H. Young, Baltimore, Maryland.

"Surgery of the Ureters"—Dr. Wm. E. Lower, Cleveland, Ohio.

"A Consideration of Newer Diagnostic and Surgical Procedures in the Bladder and Posterior Urethra"—Dr. J. F. McCarthy, New York, N. Y.

"Some Problems of Pyelitis in Children"—Dr. Hugh Thursfield, F.R.C.P., London, England.

"Diseases of the Kidneys"—Dr. V. C. Hunt, Rochester, Minnesota.

Address—Dr. Edmund L. Gros, Paris, France.

Dinner Intermission

Symposium on Diseases of the Genito-Urinary Tract, Continued

"Some Considerations Relative to Congenital Deformity of the Lower Genito-Urinary Tract"—Mr. A. Ralph Thompson, F.R.C.P., London, England.

Symposium on Gynecology

"Significance of Chronic Pelvic Pain in Women"—Dr. F. W. Marlow, Toronto, Canada.

"Surgical Complications of Pregnancy"—Dr. J. O. Polak, Brooklyn, N. Y.

"Fundal Hysterectomy"—Dr. O. Beuttner, Geneva, Switzerland.

Address—Dr. W. A. White, Washington, D. C.

"Mucosal Irritability and its Significance"—Mr. William Ibbotson, F.R.C.S., London, England.

Wednesday, October 17

Diagnostic Clinic—Dr. Harlow Brooks, New York, N. Y.

Diagnostic Clinic—Dr. W. D. Haggard, Nashville, Tennessee.

Diagnostic Clinic—Dr. V. C. Hunt, Rochester, Minnesota.

Intermission

Diagnostic Clinic—Dr. C. A. Hamann, Cleveland, Ohio.

Diagnostic Clinic—Dr. W. E. Dandy, Baltimore, Maryland.

Diagnostic Clinic—Dr. E. P. Joslin, Boston, Massachusetts.

Noon Intermission

"Echinococcus Cysts"—Dr. D. J. Cranwell, Buenos Aires, Argentina.

"The Nature of Disease"—Mr. J. E. R. McDonagh, F.R.C.S., London, England.

"The Emergency Function of the Spleen"—Dr. W. B. Cannon, Boston, Massachusetts.

"Choice of Anesthetic Methods with Relation to (1) Age of Patient; (2) Location of Disease; (3) General Condition of Patient"—Dr. H. H. Cabot, Ann Arbor, Michigan.

"Surgical Treatment for Auricular Fibrillation Occurring in Toxic Goiter"—Mr. T. P. Dunhill, F.R.C.S., London, England.

Intermission

Symposium on Diseases of the Respiratory System

"Surgical Treatment of Abscess of the Lung"—Dr. G. P. Muller, Philadelphia, Pennsylvania.

"The Value of the Heavy Metals in the Treatment of Tuberculosis"—Dr. L. S. T. Burrell, London, England.

"The Treatment of Tubercular Empyema"—Dr. W. L. Keller, Washington, D.C.

"Phrenico-exoresis and Thoracoplasty in the Treatment of Pulmonary Tuberculosis"—Dr. C. A. Hedblom, Chicago, Illinois.

"The Significance of Chronic Hoarseness in Adults"—Dr. J. M. Waugh, Cleveland, Ohio.

"Anaphylaxis"—Professor L. S. Dudgeon, F.R.C.P., London, England.

Dinner Intermission

Public Meeting

"Poliomyelitis"—Dr. W. D. Ayer, Syracuse, N. Y.

"Diabetes in Children"—Dr. E. P. Joslin, Boston, Massachusetts.

"Pneumonia"—Dr. Harlow Brooks, New York, N. Y.

Address—Dr. W. D. Haggard, Nashville, Tennessee.

Thursday, October 18

Diagnostic Clinic—Dr. C. A. Elliott, Chicago, Illinois.

Diagnostic Clinic—Dr. A. D. Bevan, Chicago, Illinois.

Diagnostic Clinic—Dr. C. H. Frazier, Philadelphia, Pennsylvania.

Intermission

Diagnostic Clinic—Dr. F. H. Lahey, Boston, Massachusetts.

Address—Mr. Farquhar Macrae, F.R.C.S., Glasgow, Scotland.

"The Effects of Intestinal Protozoa"—Dr. K. M. Lynch, Charleston, South Carolina.

"Pellagra of Today"—Dr. S. R. Roberts, Atlanta, Georgia.

Noon Intermission

Symposium on Diseases of the Gall-Bladder and Liver

Diagnostic Clinic and Address on "Cirrhosis of the Liver"—Dr. J. L. Ballmann and Dr. A. M. Snell, Rochester, Minnesota.

"Some Complications After Gall-Bladder Operations"—Dr. C. A. Hamann, Cleveland, Ohio.

"Surgical Lesions of the Common and Hepatic Ducts"—Dr. F. H. Lahey, Boston, Massachusetts.

Intermission

"Glaucoma—Our Surgical Resources for its Relief"—Dr. L. W. Fox, Philadelphia, Pennsylvania.

Symposium on Diseases of the Brain and Central Nervous System

"Surgical Treatment of Trigeminal Neuralgia"—Dr. C. H. Frazier, Philadelphia, Pennsylvania.

"Localization of Brain Tumors"—Dr. H. C. Naffziger, San Francisco, California.

"The Diagnosis and Treatment of Spinal Cord Tumors"—Dr. W. E. Dandy, Baltimore, Maryland.

"Surgery of the Spleen"—Dr. A. D. Bevan, Chicago, Illinois.

"A Useful Syndrome in the Clinical Recognition of the Syphilitic"—Dr. W. W. Graves, St. Louis, Missouri.

"Deviations from the Standard"—Dr. Otto F. Leyton, F.R.C.P., London, England.

Dinner Intermission

Address—Mr. J. Howell Evans, F.R.C.S., London, England.

Address—Dr. C. A. Elliott, Chicago, Illinois.

Address—Mr. Archibald Young, F.R.C.S., Glasgow, Scotland.

"Clinical Significance of Albuminuria"—Dr. Jack Witherspoon, Nashville, Tennessee.

Address—Dr. Morris Roch, Geneva, Switzerland.

Address—Mr. Donald Core, F.R.C.S., Manchester, England.

Friday, October 19

Diagnostic Clinic—Dr. L. F. Barker, Baltimore, Maryland.

Diagnostic Clinic—Dr. D. D. Lewis, Baltimore, Maryland.

Diagnostic Clinic—Dr. H. A. Christian, Boston, Massachusetts.

Intermission

Diagnostic Clinic—Dr. John Phillips, Cleveland, Ohio.

Diagnostic Clinic—Dr. G. W. Crile, Cleveland, Ohio.

Symposium on Disease of the Heart and Circulatory System

"Cardiolysis for Chronic Mediastinopericarditis"—Dr. E. S. Smith, St. Louis, Missouri.

"Classification of Hypertension"—Dr. J. B. McElroy, Memphis, Tennessee.

Noon Intermission

Symposium on Disease of the Heart and Circulatory System, Continued

"The Myocardium in the Acute Infections"—Dr. Harlow Brooks, New York, N. Y.

"Cardiovascular Syphilis"—Dr. A. D. Warthin, Ann Arbor, Michigan.

"The Treatment of Myxedema in Relation to Circulatory Disturbances"—Dr. H. A. Christian, Boston, Massachusetts.

"Coronary Thrombosis"—Dr. John Phillips, Cleveland, Ohio.

Address—Mr. L. L. Cassidy, F.R.C.S.I., Dublin, Ireland.

"Acute Osteomyelitis"—Dr. D. D. Lewis, Baltimore, Maryland.

Address—Sir Farquhar Buzzard, F.R.C.P., Oxford, England.

Address—Dr. G. W. Crile, Cleveland, Ohio.

"The Spastic Colon and its Concomitants"—Dr. L. F. Barker, Baltimore, Maryland.

"Cause and Treatment of Peptic Ulcer"—Dr. C. H. Mayo, Rochester, Minnesota.

MISSISSIPPI VALLEY HEALTH CONFERENCE

Dr. Linsley Williams of New York, managing director of the National Tuberculosis Association, formerly director of the war-time Rockefeller commission in France, and Dr. Kendall Emerson of Boston, well known because of Red Cross work here and in the Orient, are among the speakers at the Mississippi Valley Conference on Tuberculosis which will meet in Des Moines September 17 to 19.

Seven hundred delegates are expected from the Valley territory which includes Michigan, Wisconsin, Ohio, Indiana, Illinois, Minnesota, Iowa, Missouri, North and South Dakota, Nebraska and Kansas.

The executive committee of the National Tuberculosis Association will meet here during the conference. National committees on child health education and publicity and publications will hold business sessions the preceding Saturday. This will bring to Des Moines well known experts in the health field from the eastern states.

The Mississippi Valley Sanatorium Association will hold three sessions at Broadlawns Monday, September 17.

One and a half fare on the certificate plan has been granted by the railroads.

The three days convention program will include sessions on tuberculosis, heart disease, child welfare, health education, publicity methods, the Christmas seal sale, public health nursing and community organization.

Murray Auerbach of Indianapolis is president of the conference. Dr. John H. Peck of Des Moines is chairman of the local committee on arrangements.

SCHEDULE OF CHEST CLINICS AND CONFERENCES FOR COMING MONTHS

Chest clinics are continuously being held by the various county medical societies in cooperation with the Iowa Tuberculosis Association and the Iowa Heart Society. Below is a schedule of clinics set for the immediate future, and the dates of two important health conferences:

August 3, chest clinic, Osceola County Medical Society at Sibley.

August 10, chest clinic, Worth County Medical Society at Northwood.

September 3, chest clinic, Taylor County Medical Society at Bedford.

September 17-19, Mississippi Valley Conference on Tuberculosis at Des Moines.

September 17, Mississippi Valley Sanatorium Association at Des Moines.

September 28, chest clinic, Muscatine County Society at Muscatine.

SOCIETY PROCEEDINGS

Buchanan County Chest Clinic

The session was held in the People's Hospital, Independence, on July 6, this being the third chest clinic held under the auspices of the Buchanan County Medical Society. The clinicians were busy in the morning with the examination of an unusually interesting group of patients. At noon, through the courtesy of the members of the society a splendid luncheon was served at the Gedney Hotel, Dr. A. G. Shellito presiding. Dr. Myers spoke on the subject: Salient Features about Coronary Artery Disease, and Dr. Kanable discussed Bronchiectasis. Eight of the fifteen members were present.

Davis County Medical Society Entertains at Picnic

The Davis County Medical Society held its annual picnic at the Bloomfield Country Club, July 18. A picnic dinner was served at 12:30. Guests were present from Jefferson, Van Buren, Wapello, Appanoose and Davis Counties. The afternoon was devoted to golf and other outdoor sports and a good time was reported by everyone present.

H. C. Young, Sec'y.

Fayette County Medical Society

The Fayette County Medical Society met at Arlington, Iowa, July 2, at 6:30 p. m. The members of the society were entertained by Drs. C. M. Hazard and Frank C. Sauerbry of Arlington, J. R. Wood of Wadena, J. D. Parker and S. A. McLean of Fayette. An illustrated lecture, and Specimens of the Female Perineum, by H. J. Prentiss, M.D., of Iowa City, constituted the program.

Last month's meeting was held June 4 when the society was entertained at Oelwein by Drs. J. B. O'Connor, E. S. Kennedy, D. M. Pattison, G. M. Thein, and F. P. Leehey of Oelwein. A talk by Dr. Paul Gardner of New Hampton, Councilor for the Fourth District, preceded the paper, Acute Empyema of the Chest and Treatment, by D. W. Ward, M.D., of Oelwein.

The next meeting is to be held August 6, 6:30 p. m., at Waucoma, Iowa, where the members of the society are to be the guests of Dr. J. M. Smittle. The program will consist of case reports by T. N. Walsh, M.D., of Hawkeye and G. N. Wassom, M.D., of Oelwein; and a paper by G. M. Thein, M.D., Oelwein, on Problems in Accessory Sinus Disease.

Tuesday afternoon, July 10, at Oelwein, the Fayette County Medical Society entertained the Clayton County Medical Society. Some eighty-six were present, including practically all of the medical men of Fayette county and their wives, and Clayton county was presented by physicians from McGregor, Guttenberg, Littleport, Elkader, Volga City and Aurora, from Buchanan county. Tea was served by the ladies of the Oelwein delegation at the home of Mrs. Howard Risk of North Frederick, to the ladies of the party, which gave the wives of the medical men an opportunity to become better acquainted. At five o'clock the entire party accepted an invitation from the Sisters of Visitation to be guests of Mercy Hospital and were shown over the hospital's modern plant and equipment. At six o'clock a chicken dinner was served at the Paradise Cafe. One of the delightful events for the masculine members of the party was a game of kitten ball between Fayette county and Clayton county. The game ended when darkness came and the ball was lost, the score standing 9 to 4 in favor of Fayette county. Dire vengeance will be had at the next meeting of the two teams if it can be arranged. A boat ride on Lake Oelwein was one of the features of the entertainmmt.

Harrison County Chest Clinic

Summer vacations often decrease the attendance of physicians at the clinical conferences. Six physicians were present at the third annual Harrison County Clinic at Missouri Valley. The morning session was given to the examination of patients, at noon there was a luncheon, and a clinical discussion of cardiac cases was presented in the afternoon. Dr. R. H. Kanable of Des Moines conducted the lung clinic for Doctor Peck who was unable to be present.

Louisa County Chest Clinic

At the Louisa County chest clinic, held in Wapello, Friday, July 20, the following physicians were present: Drs. G. A. Kabrick and Haigley of Grandview; F. A. Hubbard, S. J. Lewis and O. W. McGrew of Columbus Junction; E. C. Rogers, W. J. Woodruff and J. H. Chittum of Wapello. The weather was excessively hot but the physicians manifested much interest in the clinical discussion of the patients, throughout the entire day. A noon luncheon was served at the Commercial Hotel. The visiting clinicians were Dr. R. H. Kanable and Dr. M. M. Myers.

Unusual Joint Meeting in Marion County

The first joint meeting of physicians and veterinarians in Marion county was held Friday, June 29, in the County Memorial building at Pella. The main purpose was to consider public health problems in which both groups are interested. J. R. Wright, M.D., Knoxville, spoke on the Duties of the Public Health Officer. J. G. Fultz, veterinarian of Pella, read a paper on Professional Cooperation, and Mrs. Myra Brown spoke upon her activities as social worker for Marion county. Mr. W. N. Kueneman of the Knoxville Journal urged that physicians, individually or as a group, should explain health problems and activities to the public through the newspapers. The meeting was followed with a dinner served by the Legion Auxiliary, after which many attended the Pella Ter-Centenary Pageant.

Marshall County Medical Society

The Summer Clinic of the Marshall County Medical Society was held at Elmwood Country Club, Marshalltown, Tuesday, June 7, 1928. The program was as follows:

Two p. m.—Dr. E. D. Plass, professor of obstetrics and gynecology, State University of Iowa, Pelvic Inflammatory Disease: Some Newer Ideas of Diagnosis and Treatment.

Three p. m.—Dr. Lester D. Powell of Des Moines, Blood Transfusion.

Recreation period between the hours of 4:00 and 6:00 p. m.

Dinner at 6:00 p. m. for the doctors, their wives and guests.

Seven thirty p. m.—Dr. W. W. Pearson of Des Moines gave the evening address: Fishing in the Pacific.

One hundred fifty doctors and their guests attended the dinner and evening session.

W. W. Southwick, Sec'y.

Tama County Medical Society

The Tama County Medical Society met at Conant's Park, Gladbrook, June 22, 1928. The 6:30 dinner was served by the Methodist Ladies Aid.

Dr. M. L. Allen, delegate, gave a report of the State Meeting at Cedar Rapids and a resolution was passed approving the actions of the House of Delegates at the State Meeting.

Dr. A. A. Crabbe of Traer presented a case of Lentigo

Dr. A. A. Pace of Toledo led a round table discussion of the subject of Medical Economics.

C. W. Maplethorpe, Sec'y.

Twin Lakes District Assembly

The sixth annual assembly of the Twin Lakes District Medical Society and Dry Diagnostic Clinic was held at Twin Lakes, Rockwell City, in Burns' pavilion on July 19, 1928. Over one hundred and fifty physicians were present, and eighty wives of members increased the total attendance.

President Giles C. Moorhead of Ida Grove, called the meeting to order at 10:45 a. m. and gave a brief statement of the purpose and achievement of the society, following which he called on Past President Kenefick of the State Society to give a word of greeting from that organization. President Moorehead then introduced Dr. G. H. Hansmann of the State University College of Medicine, who gave an instructive clinical presentation of the subject, The Application of Pathology to Clinical Problems. This was well illustrated by case reports and greatly stimulated the interest of those present in a heretofore neglected side of clinical medicine.

On account of the lateness of the hour, it was decided to postpone further clinical program until after luncheon, meanwhile receiving the greetings from Dean Henry W. Houghton of the State University College of Medicine, President-elect Peck, Des Moines, of the State Medical Society and Miss Helen McMahan, medical librarian of the state library. Each was complimentary of everything offered for the day with the exception of the weather and each promised hearty cooperation with the physicians of the district in any way possible toward better medical service to the public.

After one hour's intermission for the picnic lunch, family style, amply provided by the attending physicians' wives, and served by the Ladies Missionary Society of the local Presbyterian church, the meeting reconvened on the opposite and cooler side of the hall at 1:00 p. m.

President Moorehead introduced Dr. Irving S. Cutter, dean of Northwestern University Medical School who gave a stirring address on Medical Economics. It was apparent that the speaker was not delivering any ritualistic address, but rather speaking

from the heart on a subject somewhat taboo in higher medical circles. The applause that greeted him at its close was significant.

Next on the program was the Endocrine Clinic by Dr. Wm. Engelbach of the Engelbach Clinic, St. Louis. Although the speaker had somehow failed to bring his rich collection of lantern slides, he was not wanting in case reports to illustrate his remarks. The note he sounded was the simplicity of diagnosis of endocrine disorders and the long neglected field. The secretary then introduced Dr. Arthur E. Hertzer of Halstead and Kansas City, whose subject, Goitre, was especially well received and illustrated by lantern slides.

The Treatment of Chronic Arthritis was the subject of a scholarly presentation by Dr. Melvin S. Henderson, professor of orthopedic surgery in the Mayo Clinic. The last number was also presented by a Mayo Clinic professor, Dr. Norman M. Keith. The subject, Types of Hypertension, was fully illustrated by case reports of patients followed over long periods during the study of this subject which has made the essayist an authority on high blood-pressure.

At little after 5 p. m. the president adjourned the sessions. A business meeting of Twin Lakes District physicians was quickly called after the departure of the many visitors (among them such well known physicians as Dr. William Jepson of Sioux City; F. J. Rohner of Iowa City; V. L. Treynor and A. A. Johnson of Council Bluffs; W. E. Sanders, H. B. Henry and Phil Parriot of Des Moines; N. M. Whitehill, Boone; M. N. Voldeng, Woodward, and C. G. Smith of Granger), when the following business was transacted. The secretary-treasurer presented the financial report showing a balance on hand before the day's receipts, of \$29.75 and bills paid of \$307.60, as shown by cancelled checks.

On motion the report of secretary-treasurer was approved and ordered placed on file.

Mrs. G. C. Moorehead was then called upon to report the formation of a Women's Auxiliary. (Reported elsewhere in this issue.—(Editor's note.)

A call for suggestions as to next year's program brought out the following points: Appoint committees a year ahead. One suggested that the meeting be held in June, another in October to avoid the intense heat. Another address along the line of Medical Economics was suggested.

On the call for nominations for officers for the ensuing year Dr. C. H. Morse of Eagle Grove being the only nominee for president, and Wright county being due to receive that honor, Dr. Morse was named president for 1929 by acclamation. Dr. Van Metre of Rockwell City, past secretary-treasurer was re-elected by acclamation.

Resolutions of respect were presented by a special committee on the death of a former member and past president of the society, Dr. C. J. Saunders of Fort Dodge, as follows:

Whereas, death has removed from the membership an ex-president of the Twin Lakes District Medical Society in the person of C. J. Saunders;

Therefore, be it resolved, that we extend to his family the sincere sympathy of the members of this society in the loss of a member who had won the highest esteem and was regarded with profound respect by every physician with whom he came in contact.

Be it further resolved, that the secretary be instructed to spread these resolutions on the minutes of this society and to send a copy of the same to the family of the decedent and to the Journal of the State Medical Society.

Signed:

A. H. McCreight,
M. J. Kenefick,
Committee.

The secretary was authorized to pay bills incurred by the day's meeting.

There being no further business before the society, the meeting was adjourned at about 6 p. m., to reconvene in the year 1929.

Signed,

P. W. Van Metre,
Secretary-Treasurer.

Austin Flint-Cedar Valley Society Meeting

The Austin Flint-Cedar Valley meeting was held in Mason City and Clear Lake on July 10 and 11. There were about one hundred physicians in attendance at this meeting, which was a great success, both from the scientific and social points of view.

Dr. Walter L. Bierring of Des Moines, gave a clinic in the afternoon of the 10th, in which he demonstrated the philosophy of diagnosis in upper abdominal conditions, and also demonstrated a case of anaemia arising from pregnancy. Dr. Henry S. Houghton, dean of the medical school of the State University, gave a most interesting talk on the relationship of the medical school to the university.

The banquet at the Lake Shore Hotel in the evening was a very enjoyable occasion, with a short talk on China by Dean Houghton, and a most delightful talk by Dr. Bierring on The Doctor in Literature.

On July 11, Dr. H. W. Orr of Lincoln, Nebraska, gave a very convincing talk on the treatment of infections of bones and joints by rest. Dr. John D. Ellis of Chicago, discussed very masterfully, Borderline Compensation Cases.

All of the papers by the local members of the society were of high merit: Intravenous Therapy and Some Experiences With It, by F. W. Porterfield, M.D., Waterloo; discussion by W. S. Osborn, M.D., Osage. Exophthalmic Goiter Complicated by Pregnancy, T. E. Davidson, M.D., Mason City; discussion by A. A. Schultz, M.D., Fort Dodge. Local Anesthesia for the General Practitioner, B. R. Weston, M.D., Mason City; discussion by O. H. Banton,

M.D., Charles City. Bronchial Asthma With Special Reference to Nasal Conditions, S. W. Barnett, M.D., Cedar Falls; discussion by F. J. Bries, M.D., Sumner. Alkalosis, J. C. Shrader, M.D., Fort Dodge; discussion by C. F. Roder, M.D., Dumont. Notes and Observations on the Modern Hospital Treatment of Diphtheria, Mary B. Spahr, M.D., Mason City; discussion by S. C. Mulholland, M.D., Fort Dodge. Carcinoma of the Colon, E. T. Alford, M.D., Waterloo; discussion by C. L. Marston, M.D., Mason City.

At the business meeting Dr. C. H. Graening of Waverly was elected president; Dr. C. M. Ray of Iowa Falls, vice-president; Dr. L. R. Woodward of Mason City, secretary; and Dr. W. E. Long, Mason City, treasurer. Iowa Falls was selected as the place of meeting for the autumn session.

Sioux Valley Medical Association Meeting

The thirty-third annual session of the Sioux Valley Medical Association was held at the Cataract Hotel, Sioux Falls, South Dakota, June 27, 1928. The following program, all accompanied by lantern slides, was presented:

Some High Spots in the Diagnosis and Treatment of Pulmonary Tuberculosis, by Everett K. Geer, M.D., St. Paul, Minnesota.

The Pathology of the Hip Joint, by Karl R. Wernsdorff, M.D., Council Bluffs.

Renal Tuberculosis, by Nathaniel G. Alcock, M.D., Iowa City.

When and When Not to Operate in Acute Biliary Disease, by Alfred Brown, M.D., Omaha, Nebraska.

Functional Insanity, by George Donahoe, M.D., Cherokee.

At the business meeting the officers elected for the coming year were: President, Dr. C. P. Dolan of Worthington, Minnesota; vice-presidents, Drs. C. O. Wright, Luverne, Minnesota, and Goldie Zimmerman of Sioux Falls, South Dakota; secretary, Dr. John H. Henkin of Sioux City, reelected; and treasurer, Dr. W. R. Brock of Sheldon, reelected. The newly elected member of the board of censors is Dr. H. R. Hummer of Canton, South Dakota.

There was a dinner in the evening which was presided over by the retiring president, Dr. G. G. Cotnam, who was also in charge of the arrangements for the meeting. The next meeting of the Sioux Valley Medical Association will be in Sioux City, January 22 and 23, 1929, when an extensive program of clinics and papers will be presented.

John H. Henkin, Sec'y.

Waterloo City Medical Society

Dr. J. Curtis Lyter of St. Louis addressed the Waterloo City Medical Society on June 20 on the Medical Aspects of Thyroid Toxycosis. The society were hosts to about fifty doctors from the surrounding territory. Several of the doctors present discussed the paper which was especially interesting in its preoperative preparation and postoperative observation.

Dr. Lyter believes that operation is the only cure for the toxic thyroid, and that iodine is a valuable and necessary adjunct in preparation.

Following the dinner at Black's Tea Room, the annual election of officers was held. Dr. Joseph W. Rowntree was elected president for the ensuing year; Dr. Wade Preece, secretary; Dr. E. I. Dunkelberg, treasurer; Dr. Edin R. Shannon, censor; Dr. C. W. Ellyson, trustee. Meeting adjourned at 9:30 p. m.

The monthly meeting of the Waterloo City Medical Society which includes dinner and out of town speaker, was discontinued during the summer months. The next meeting will be held on the third Wednesday in September. This concludes the fifteenth year of these monthly meetings. The society was among the first, if not the first, in the state of Iowa to inaugurate the plan of having an out of town visitor speak to the society. The past year has been especially successful in speakers and in attendance. The society has been host to all of the doctors in the surrounding vicinity and each year sees a greater number and a greater manifestation of interest.

Wade A. Preece, Sec'y.

Meeting of the Iowa Clinical Surgical Society

At the meeting of the Iowa Clinical Surgical Society held the morning of June 30, at Mercy Hospital, Waverly, there were present about twenty-four surgeons. Eight cases were operated by Dr. W. A. Rohlf. After the clinic, dinner was served on the banks of the Cedar River at the Gun Club grounds. Following that the business session was held during which the morning clinic was discussed by the various members. Election of officers resulted as follows. Donald Macrae, Jr., M.D., Council Bluffs, president; E. A. Jenkinson, M.D., Sioux City, secretary and treasurer. Upon adjournment the members enjoyed clay pigeon shooting, golf and other recreation. A number remained and were entertained at the Park Inn for dinner. The next meeting will be held in Dubuque, Iowa.

Des Moines Women's Medical Society Entertained at Indianola

Dr. Rose Butterfield of Indianola entertained the members of the Des Moines Women's Medical Society at a six o'clock dinner July 3. The dinner was followed by the regular medical program. Physicians present were Dr. Scott, Dr. Noble, Dr. Hatch, Dr. Nelson, Dr. Doane and Dr. Forsythe. A paper was read by Dr. Noble followed by discussion.

PERSONAL MENTION

An item of interest to the many friends of Dr. Ed. C. Ayers of Lorimor is contained in the following extract from a local paper:

"Dr. Ed. C. Ayers, who, for the past thirty-five years has been a physician and surgeon in Lorimor, retired from active practice last Saturday. There

are few residents of Lorimor today, who were here when Dr. Ayers located here about six years after the town was laid out. He has seen many vast changes both in town and country, having witnessed the partial destruction of the town by fire on two occasions. Such was the life of a country doctor—suffering exposure, baffled by transportation—both in the performance of duty. Hence today, Dr. Ed. has been compelled by ill health to retire from his much loved profession. For thirty-five years, with the exception of the period he spent in the U. S. Army during the World War, he has ever been loyal to his many patients for miles around this community. It goes without saying that he will be greatly missed in his profession, and his many friends are glad to see him take this long earned rest while he is in position to be among us and enjoy life. Dr. C. A. Ayers, his successor, is well known to the older residents of Lorimor. For twenty-four years he has been a physician and surgeon, covering the towns of Leighton and Tracy, making the former town his home."

Drs. L. D. Jay and M. N. Gernsey, both of Waverly, returned recently from their vacation at Spirit Lake, Iowa, where they attended the Shrine convention.

Dr. T. S. Walker of Riceville, returned home July 14, from an auto vacation trip into Canada.

Dr. W. L. Whitmire and wife of Sumner are taking a vacation trip to the Black Hills, South Dakota. James L. Whitmire, his son, who has recently graduated at Iowa City and finished his internship at Anchor Hospital of St. Paul is taking his father's practice at Sumner while he is away.

Dr. Osincup of Waverly was returning July 16 from a vacation trip, when within twelve miles of home he drove his auto into the ditch to escape a collision with another car. In spite of the fact that his wife went through the windshield and Dr. Osincup performed some unusual contortions and summersaults neither one was injured although the car was badly smashed up.

Dr. L. C. Kern of Waverly expects to take an auto vacation trip through the east in August.

Dr. M. T. Morton has returned to Estherville from Iowa City, where he has been for the past two years, doing research work at the University and acting as one of the resident doctors at the University Hospital. He is resuming his practice in Estherville.

Dr. Herman H. Van Horn formerly of the Jane Lamb Memorial Hospital at Clinton, Iowa, has been appointed to the position of pathologist in the Methodist Hospital, Sioux City, Iowa, to succeed Dr. A. R. Abel, who resigned to accept a position as pathologist in the Orange Memorial Hospital at Orange, New Jersey.

On the morning of June 18, Dr. M. E. O'Keefe of Council Bluffs was seriously injured and his fellow passenger, B. E. Gibbs, D.D.S., also of Council Bluffs, was killed in an airplane crash which also seriously injured their pilot, Cliff Burnham. In the plane, which was jointly owned by Drs. Donald Macrae, O'Keefe and Gibbs, the latter two had

started for a clinic in Denver when the plane encountered a severe storm and went down in the Platte river. Late reports indicate that Dr. O'Keefe will recover.

MARRIAGES

June 9th, at her home in Hopkinton, Iowa, Dr. Huberta Livingstone, daughter of Mrs. H. and the late Dr. H. Livingstone, became the wife of Dr. William E. Adams of Iowa City, Iowa.

The bride received her degree from the Medical School of the S. U. I. recently. She will become an interne at the Presbyterian Hospital in Chicago, after which she will have a fellowship in the surgery department of the University of Chicago Hospital.

Dr. Adams was graduated in 1926 from the Medical School, S. U. I., after which he became an interne there under Dr. Charles Rowan. The last year he has been working in the department of anatomy at the College of Medicine under Dr. H. J. Prentiss. Next year he will be in the surgery department of the University of Chicago Hospital, under Dr. D. B. Phemister.

The couple are now spending their honeymoon motoring in the West.

Dr. Harrison Jewell, son of Dr. H. E. Jewell of Coon Rapids and Russom Nowles were married at the home of the bride's parents, Mr. and Mrs. Ira Nowles, Yale, June 30.

OBITUARY

Resolutions by Jefferson County Medical Society on Death of Dr. Winfield Fordyce

In the death of Doctor Winfield Fordyce, which occurred at his home in Fairfield, Iowa, on the 16th day of April, 1928, the Jefferson County Medical Society, of which he was a loyal member, and for many years had efficiently served as its official head, has sustained the loss of its beloved nestor, and one of its most worthy and highly esteemed members. The community in which he lived, and where his entire professional career was spent, has lost an ideal citizen and one of its most faithful and useful servants. His friendship and wise counsel will be sadly missed by his medical colleagues who esteemed him, not only for his professional attainments, but also for his many admirable qualities as a man and a citizen; many homes have been saddened, especially those homes to which he had so often brought hope and cheer and relief in times of sorrow and suffering. But the saddest thought that comes to us all, is that in the death of this worthy man there has been removed from the family circle a kind, indulgent husband and a loving father.

For more than a half century Doctor Fordyce was engaged in the practice of his profession in Jefferson County, continuing his activities almost to the day

of his death. He was one of the few remaining old school practitioners, a family physician by choice and training, and of that rare type which was the idol of the pioneer home, and has been made the theme of poets and the hero of romances; a type that is rapidly disappearing and in the course of a few more years will exist only in association with other cherished memories of bygone days. Unlike the younger generation of physicians, he had no hobby; he never learned to play nor conserve his energy; even in the later years of his life when his health and strength were declining, he seldom left his work for a much needed vacation, but seemed to find his chief delight and greatest satisfaction by devoting his full time and energies to the relief of the suffering of his fellow man.

Throughout his long and busy career he was recognized by those of us who knew him best, as a man of sound judgment and a close observer of human nature, and the fact that his life work was confined to one locality, enabled him to thoroughly study his families; he was familiar with their histories for several generations; their psychic peculiarities and physical tendencies were to him as an open book, which enabled him to render them more efficient service whether in the prevention or cure of their ailments. He was the fortunate possessor of a rare personality which endeared him to his patients and friends, and which contributed in no small measure to his professional success and the deserved popularity he enjoyed among his associates.

While devoted to his chosen profession, he recognized his duties and responsibilities to society, and every movement for the improvement of the community had his hearty support. He was prompt in the discharge of his business obligations, and fair and just in all of his relations with his patients, the public and his fellow physicians. He was cautious, and prudent in all of his business or professional undertakings, yet when his conclusions were once formed, he had the courage of his convictions.

Such sterling characters as Doctor Fordyce are valuable assets to the communities in which their lives have been spent. It is due to the efforts of such men that the community, the state and the nation are able to carry on, and our civilization is made possible. As a result of the unselfish service he rendered, there has been a little less suffering in this world, and in many other respects it is better for his having lived in it. In laying down the burdens of life, which he carried so long and faithfully, our friend and colleague has left to us an example of the useful life which we as physicians should endeavor to emulate, and to his family it will be a legacy more precious than material things, a source of comfort and consolation to each member until they join him in the great beyond.

The members of the Jefferson County Medical Society, individually and collectively, wish to extend their heartfelt sympathy to this bereaved family, and to that end have instructed their secretary to inscribe

this expression of their sorrow on the records of the society, and forward a copy of the same to each member of the family.

S. K. Davis,
J. S. Gaumer,
Charles Ricksher,
Committee.

The Tama County Medical Society met at Dysart, July 5, 1928, and attended the funeral service of Dr. Herman LeRoy von Lackum, at the Evangelical church.

At that time the following resolutions were adopted.

Whereas: Divine Providence has seen fit to remove from this earthly sphere Dr. Herman LeRoy von Lackum, of New York, an esteemed son of our associate, Dr. H. J. von Lackum of Dysart,

Therefore: Be it resolved that we extend to Dr. H. J. von Lackum the sincere sympathy of this society, in the hour of his bereavement.

Be it further resolved that a copy of these resolutions be sent to Dr. H. J. von Lackum, a copy be of record in the minutes of our society, and a copy sent to the State Medical Journal.

A. A. Pace,
C. W. Maplethorpe,
Committee.

Dr. Frank Eugene Rudolf of Davenport died June 23, 1928, at St. Luke's Hospital, following a stroke he suffered June 15.

Dr. Rudolf was born in Buffalo, N. Y., October 9, 1861. When a small boy with his parents moved to Louisville, Kentucky, where he received his early education. He graduated from Louisville Medical College in 1891 and began practice in Mapleton, Iowa, immediately after graduation, where he remained until 1899, when he removed to Davenport.

In 1902 he was elected coroner of Scott County, a position he held until 1914, when he retired from the office.

About two years ago Dr. Rudolf was obliged to retire from practice on account of failing health. Dr. Rudolf was a member of the Scott County and Iowa State Medical Societies and of the American Medical Association.

The year he began practice in Mapleton he married Miss Margaret Marks of Louisville, who survives him.

Dr. Edward C. Rawson of Strawberry Point died in his garage November 27, 1927.

Dr. Rawson was born April 8, 1866, at Strawberry Point, Iowa. His father was a pioneer physician of Iowa, having practiced in Strawberry Point for more than forty years.

Dr. Edward C. Rawson was educated in the public schools at Strawberry Point. Following his high school graduation, he attended for one year Upper Iowa University. After teaching school one year he

entered Northwestern University Medical School at the age of twenty-one years, and graduated in 1891.

Dr. Rawson was interested in local affairs and took an active part in church and lodge work. He represented a type of useful men who find in their routine professional and business affairs, an interest in the social activities of their communities, to make life full of interest and happiness.

Dr. Rawson married Miss Gertrude E. Gilchrist in 1892, who, with two children, survives him.

Dr. C. C. Green of Des Moines died June 20, 1928, following a year's illness.

Dr. Green was born in Montreal, Canada, July 30, 1846. Graduated in medicine at the University of Michigan in 1874 and post-graduate course at Keokuk, completing his work in 1876. Following his work at Keokuk he practiced in Topeka and Winfield, Kansas, for fifteen years. During this period Dr. Green served as professor of anatomy in the Kansas Medical College and at one time was president of the Kansas State Medical Society. For several years he was surgeon for the Atchison, Topeka & Santa Fe Railroad Company.

On July 12, 1876, Dr. Green married Alice Marian Blair of Carbondale, Pennsylvania. In 1884 they moved to Des Moines, where he continued the practice of medicine until 1917. Surviving Dr. Green are his wife, Alice Marian Green, and four children.

Dr. W. B. Lawrence of Red Oak died at his home in Red Oak April 9, 1928. He had been in failing health for several months but had been about until a few days before his death.

Dr. William Benjamin Lawrence was born in Beaver County, Pennsylvania, December 28, 1855. He attended the Medical College of Ohio and Jefferson Medical College in Philadelphia and graduated from the latter school March 29, 1884. In 1884 he located in Winchester, Kansas. In December, 1889, he moved to Red Oak, where he practiced until the time of his death.

Dr. Lawrence was a man of culture and was deeply interested in his profession. He was at one time president of the Montgomery County Medical Society and at various times contributed to various publications.

In 1884 he married Miss Belle Bryan of Hookstown, Pennsylvania. Mrs. Lawrence died in New Wilmington, Pennsylvania, December 31, 1908. Dr. Lawrence was married a second time July 10, 1912, to Miss Ellen Gohagan, who survives him.

Dr. James Clyde Elder was born in Albia, Iowa, and after graduating from the high school of Albia spent most of his life in neighboring states. Dr. Elder was born November 25, 1881, and died in Wesley Memorial Hospital, Chicago, April 17, 1928.

After graduating from the high school of his na-

tive town he entered Tarkio College, from which he graduated with a B.S. degree in 1905. He took a post-graduate course at Yale University. After teaching two years at Cape Guardeau Normal School in Missouri and one year at James Milliku University, Decatur, Illinois, he accepted a position on the faculty at Tarkio. During his work at this institution he began the study of medicine at Rush Medical College. Soon afterwards he resigned his teaching position in order to complete his medical course at Chicago University; and received the M.D. degree in 1918. After two years' internship in Wesley Memorial Hospital he commenced practice in Chicago.

Dr. Milo B. Stine of Des Moines met his death at 7:15 p. m., Sunday, July 22, when the airplane in which he was a student-passenger fell in a field in the northwest outskirts of Des Moines. Dr. Stine, who was a member of the Polk County and Iowa State Medical Societies, was forty-nine years of age, and leaves a wife and two daughters.

Dr. P. J. Hession died suddenly Friday evening, July 6, at his home in Graettinger. Born in St. Louis, Missouri, May 26, 1863, he graduated from the College of Physicians and Surgeons at Keokuk in 1887, was married in 1890 to Miss Rosa Young who survives him, and in 1908 moved to Graettinger where he had practiced medicine continuously since that time. Dr. Hession was long a member of the Palo Alto County Medical Society, the Iowa State Medical Society, and the American Medical Association. The honorary pall bearers, all fellow members of the Palo Alto County Medical Society, were Drs. Nae of Graettinger, Brereton, Cretzmeyer, Hennessy, Powers and Woodbridge of Emmetsburg, Beatty of Mallard, and Nelson of Ayrshire.

A HAPPY COMBINATION

The aim in scientific medication has always been to combine the highest degree of efficiency with the lowest degree of risk—for it is almost a truism in medicine that any drug powerful enough to do good may also, if indiscreetly used, do harm. Thanks to the research work that is so intensively carried on by our best pharmaceutical manufacturers, the element of danger is being reduced without impairing the element of efficiency; and this applies to both chemical and biological products—iodine, mercury, the salicylates, antitoxins, antigens, etc.

One of the most striking examples of this class of work is the separation of the virulence of rabid brain tissue from its antigenic activity. By the method of Dr. Cumming (dialysis) a rabies vaccine is offered by Parke, Davis & Co. which cannot possibly infect the patient with rabies, but which is claimed to be much more efficient as a prophylactic, after the bite of a mad dog, than the original Pasteur vaccine.

BOOK REVIEWS

AMERICAN MEDICINE AND THE PEOPLES' HEALTH

By Harry H. Moore, Public Health Economist, United States Public Health Service.
D. Appleton & Company, Publishers.

The relation of the medical profession to the public has greatly changed in the last few years and it is probable that the change will go on. Fifty years ago young men entered the medical profession partly because of the respect accorded to the physician and partly as an honorable and distinguished employment. The relation was a personal one. As specific knowledge increased and was more widely spread, and as scientific knowledge became more closely associated with medicine, our practical relations to health correspondingly increased. Following more or less closely public interest increased until now the public has entered deeply into the problem of public health, which has tended to divide medicine into preventive medicine and treatment. The first, a public problem and the second a private professional question. It is not at all strange that an enthusiastic public interest should sometimes fail to recognize the dividing line and link preventive medicine with treatment, and cause irritation among private practitioners, and thus lead to criticism on the part of public health workers on account of an apparent failure of practitioners to cooperate in health matters.

It is contended that the public was not created for the benefit of the doctors, but rather, that doctors were educated for the benefit of the public. In certain communities health workers have inaugurated free clinics, part pay clinics, and pay clinics, directly in competition with practicing physicians. Health workers contend that this is necessary to afford large classes of patients a service they cannot adequately obtain from private practitioners. In consequence of the apparent conflict of interests, or on account of misunderstanding, a serious conflict has arisen to the disadvantage of all concerned.

In view of this fact Dr. Moore has written a book which has for its purpose the reconciling and explaining these discordant views and bringing together these various elements for the common good, for which all are honestly and earnestly working.

Mr. Moore, who is not a physician, has submitted the manuscript to a committee of five well known physicians for their approval, and as presenting a fair exposition of "American Medicine and the Peoples' Health" before the book was offered to the profession and the general public. The committee of five consisted of Doctors Lewellys F. Barker, Michael M. Davis, Walton H. Hamilton, Winford H. Smith and C. E. A. Winslow, who have written an introduction of explanation and approval. In view of the seriousness of the situation, the medical profession, the natural leaders in public health matters, should read with care.

D. S. F.

THE MEDICAL CLINICS OF NORTH AMERICA

Volume II, Number 3, Octavo of 210 Pages, With 46 Illustrations. W. B. Saunders Company, 1927.

The Clinic number for November, 1927, is prepared by members of the faculty of Tulane University. Dr. John H. Musser presents a clinical number on Measles, and Dr. Charles W. Duval on Scarlet Fever. Important subjects in their various relations.

An important subject is presented by Dr. I. I. Lemann on the Treatment of Diabetic Gangrene, When to Operate and When to Practice Conservatism, important in that it requires the soundest judgment to determine what course to pursue in certain cases. A warning is offered in relation to trusting too much to insulin and diet.

There is presented a report on Plague from the United States Marine Hospital, New Orleans, by Dr. R. W. Mendelson.

D. S. F.

THE SURGICAL CLINICS OF NORTH AMERICA

Volume VII, Number 5, 266 Pages, With 132 Illustrations. Per Clinic Year, February, 1927, to December, 1927. Cloth \$16.00 Net. W. B. Saunders Company, 1927.

This is a Pacific Coast Surgical Association number, dedicated to the memory of Lord Lister on the Centennial of his Birthday, by Edgar Lorrington Gilcrest.

Dr. Robert C. Coffee of Portland contributed the first number, "Cancer of the Pelvic Colon and Rectum". An important subject is contributed by Dr. Frank Hinman, University of California, under the title, "The Significance of Pain in the Differential Diagnosis of Kidney, and Ureteral Conditions from Intra-Abdominal". Dr. Wayland A. Morrison of the Santa Fe Hospital, Los Angeles, presented the subject, "Diaphragmatic Hernia". Dr. John B. Mc-Nerthney, representing St. Joseph's Hospital, Tacoma, Washington: "A Suspension Technic in Throat Gland Surgery, Sarcoma of the Thyroid Gland, Carcinoma of the Thyroid Gland".

The Children's Hospital, San Francisco, was represented in the Clinic by a report of two cases of "Congenital Intestinal Obstruction; Atresia of the Jejunum", by Drs. Weeks and Delprat.

"The Surgical Treatment of Pulmonary Tuberculosis and Bronchiectasis", by Dr. Charles D. Lockwood of the Pasadena Hospital, Spokane, Washington. St. Luke's Hospital was represented by Dr. A. Aldridge Matthews, who presented a rather full clinic. Dr. O. F. Lamson of the Swedish Hospital represented Seattle; Dr. S. L. Caldric, Everett, Washington; Clinic of Dr. Thomas O. Burger of Mercy Hospital, San Diego, California; Dr. Sumner Everingham, Oakland. Other clinics representing the other larger Pacific Coast cities are presented in this number which we have not the space to note.

D. S. F.

THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE WORLD WAR

Volume VII. Training, By Colonel William N. Bispham, M.C., United States Government Printing Office, Washington, D. C.

In the introduction it is shown that when the United States entered the World War there were on duty in the medical department 491 regular medical officers, 342 temporary officers, 86 officers of the dental corps and 62 veterinary officers. The enlisted men in the medical department 6,619.

The Medical Defense Act of June 3, 1916, provided 10 medical officers and 100 enlisted men for each 1000 men in war time. It was soon apparent that this equipment would not form a skeleton for the great army which was to be formed, therefore it would be necessary to recruit a sufficient number of medical officers from civil life, who, while trained in the principles of medicine and surgery, were mostly untrained in the mechanism of war.

It now became necessary to establish training schools in the war activities at many convenient places in the country for educating medical officers in the art of war. This volume of 1211 pages is devoted to training medical officers in the manifold duties of modern warfare.

D. S. F.

INTERNATIONAL CLINICS

A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles. Edited by Henry W. Cattell, A.M., M.D., Philadelphia, U.S.A., Volume II. Thirty-Eighth Series, 1928. Philadelphia and London: J. B. Lippincott Company, 1928.

The "International Clinics" was founded by the J. B. Lippincott Company in 1900, the first volume being published in 1891. The purpose of this publication was to furnish authentic medical information from all corners of the earth, written by recognized authorities and covering all phases of medical knowledge useful to the physician in his daily practice. The remarkable success of the International Clinics is demonstrated by the fact that the present volume, Volume II of the Thirty-eighth Series, is the 150th to have been published by this concern. When the 100th volume appeared, it contained as a keynote article "The Coming Age of International Medicine in America", by the late Sir William Osler. The keynote paper of the 150th volume has been very fittingly prepared by Sir Humphrey Rolleston. Dr. Lewellys F. Barker, Dr. Judson Daland, Dr. James J. Walsh, have each contributed articles commemorating this 150th quarto-anniversary number. The remaining contributions to this volume are of the same outstanding, authoritative character as those published in earlier volumes. The editor and publishers are to be congratulated on having reached to so high a degree the aims of the originators of this publication, and in having perpetuated for so many years this most useful clinic series.

R. R. S.

PRACTICAL LECTURES ON THE SPECIALTIES OF MEDICINE AND SURGERY

Delivered Under the Auspices of the Medical Society of the County of Kings, Brooklyn, New York. Second Series, 1924-1926, with 110 Illustrations. Paul H. Hoeber, Inc., New York, 1927. Price \$7.00.

This book of 590 pages contains a series of 38 lectures by some of the most representative of American practitioners on various subjects. Among the lecturers may be mentioned Drs. James T. Case, George W. Crile, Haven Emerson, Frank H. Fahey, William H. Lohman, John O. Polak, Albert Vander Veer, Jr., and others of equal merit.

Dr. William Seaman Bainbridge presents an exceedingly interesting lecture on "Some Practical Aspects of the Cancer Problem". Dr. Warren Coleman, whose writings we read with great interest, reviews with especial skill, "The Newer Remedies".

Physiotherapy, one of the newer subjects in medicine, is presented in a lecture by Dr. Harry E. Stewart, Marine Hospital, New York and director New Haven School of Physiotherapy, New Haven, Connecticut. "The Doctor in Court", is by Dr. John G. Dryer of New York.

We have read this book with much interest because of the subjects presented, the literary character of the presentation and the fine type and the general mechanical make-up of the work.

D. S. F.

NEOPLASTIC DISEASES

Third Edition. A treatise on Tumors. By James Ewing, M.D., Sc.D., Professor of Pathology at Cornell University Medical College, New York City. Third Edition, Revised and Enlarged. Octavo of 1127 Pages With 546 Illustrations. Philadelphia and London: W. B. Saunders Company, 1928. Cloth \$14.00 Net.

This third edition of the favorably- and well-known Treatise on Tumors prepared by Dr. James Ewing embodies certain revisions and additions made necessary because of recent investigations in pathology. The section on osteogenic tumors has received considerable revision. This revision is based upon the information secured from Codman's Registry of Bone Sarcomas. Mammary carcinomas have been reclassified so that the present presentation is very much simpler than the former one. Sixty new illustrations have been added. This volume hardly needs introduction to the medical profession, since the prompt acceptance of the first edition bespoke the enthusiastic endorsement of this authoritative presentation of neoplastic disease, by one of America's most able pathologists. I know of no volume which in any way approaches the scope of usefulness enjoyed by Dr. Ewing's book. The volume is unqualifiedly recommended to every physician, regardless of his specialty or school of practice.

R. R. S.



DAVID STURGIS FAIRCHILD

The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, SEPTEMBER, 1928

No. 9

DAVID STURGIS FAIRCHILD, M.D., F.A.C.S.

A Biography

By WALTER L. BIERRING

- I. *Ancestry—Boy in the Vermont Hills—Early Education—Medical studies—Early years of practice in Minnesota and Iowa—Organized Story County Medical Society 1873—Member State Medical Society and American Medical Association 1874—Teacher of comparative pathology, Theory and Practice of Medicine, studies in tuberculosis, nephritis, Addison's disease—Surgery as a specialty—Removal to Clinton 1893.*
- II. *Consultant in surgery—Extension of activities in railway surgery—Teacher of surgery—Dean, Drake University Medical School—President, Iowa State Medical Society—Chairman Committee reorganization plan—Pan-American Medical Congress—Vice-President American Medical Association—Medico-Legal Committee.*
- III. *Medical Journalism in Iowa—Editor Journal Iowa State Medical Society 1910—Publication of articles different epochs of Iowa Medical History—History of Medicine in Iowa.*

I.

THROUGHOUT a long life of professional activity Doctor Fairchild has always maintained a deep interest in the historical aspects of medicine. It seems fitting therefore to amplify the remarkable period during which he lived with personal incidents and experiences interwoven with the threads of this biography. We are mindful that the vital elements of history are not always found in great events, but it is rather the commonplace and matters of personal incidents that form the true index of human progress.

His life affords an interesting example of the influence of heredity, cultural training and adaptation to environment. Born in the Vermont hills of fine lineage, bred in an atmosphere of homely

virtues, trained in the classics and foreign languages with the most complete medical education of the period, he approached the new land of the Mississippi Valley with the true spirit of the pioneer and soon made himself a part of the new country.

As the prairie was transformed to fertile fields and thriving cities, he too advanced in the current of medical progress and spread the beneficence of his accumulated experience all about him. His has been a life of interesting contacts with medical leaders and great achievements in the field of medicine and surgery. No attempt has been made to fully appraise his many accomplishments, but in following the chronicle of sixty years of dignified professional labor, it will be

recognized that he contributed no small part to the medical progress of his time.

A large part of the life story has been told in Doctor Fairchild's numerous contributions to the History of Medicine in Iowa. The events of his boyhood, youth, and early years of practice have not as yet been placed on record, so it will be of particular interest to have these presented in his own words.

ANCESTRY AND BOYHOOD

"My ancestors came to Connecticut from England in an early day of that Colony about 1700, and located in Fairfield county. On my mother's side in the town of Fairfield, and on my father's side in the town of Norwalk. Both of these towns were located on Long Island Sound about sixty miles from New York City. Being of a hardy race the family traditions are easily traced for nearly three hundred years. It appears that on my father's side the record under the name of Fairbairn extends back to the Scotch Crusaders. My own immediate line moved in 1740 from Norwalk into the country about twelve miles north of Norwalk known as Redding Ridge. Here my ancestor, Abraham Fairchild, in 1740 built a house, a grist mill, and a saw mill. The house still stands in good state of preservation, but only the foundation of the mills remain. The old house is now occupied by a brother and sister, artists, who selected this place on account of the beauty of its surroundings, and on one of the mill foundations a wealthy New York family has built an attractive home.

"My mother's family name was Sturgis of Norman extraction, bearing the name of DeTurg, and known as far back as 1100 in the time of the Crusaders. The old Sturgis mansion still stands, and is occupied by the descendants of the early settlers of that name. The original mansion was destroyed by fire when the British and Tories under Governor Tyron and Benedict Arnold made the raid on the Long Island Sound villages of Connecticut in revolutionary time, but was rebuilt at the close of the Revolutionary War.

"My mother's father, Ezra Sturgis, who had followed the sea until 1800, purchased land in northern Vermont in 1796, and moved to Vermont in 1800. Among the things I have to remember him by is his sea-chest, his demit from the Masonic lodge in Belfast, Ireland, of which he was a member for two weeks while his ship was undergoing repairs, and the log kept on his last voyage.

"My father, Eli, the great grandson of Abraham Fairchild, who as previously stated, settled

in Redding Ridge, Connecticut, emigrated to Fairfield, Vermont, in 1844. In 1845 he married Grace Diamond Sturgis, a daughter of Ezra Sturgis, and there in the old house built by my grandfather Sturgis I was born September 16, 1847. My mother was also born in this house in 1817. Fairfield, Vermont, was about fifteen miles south of Canada, and ten miles east of Lake Champlain. When my grandfather Sturgis came to Vermont in 1800, it was a wilderness with a few settlers scattered here and there, who had emigrated from Fairfield, Connecticut, bringing with them the name of their native town. The only means of transportation was on horseback, guided by blazed trees. The land was not very fertile, and before any cultivation was possible, it was necessary to clear the land of a heavy forest, which required the best years of the first generation.

"I was born into comfortable circumstances. We were not rich nor very poor; we knew but few of the luxuries, which are now regarded as necessities. I do not recall a single instance of hardship or want, as the valleys by that time were fertile and furnished every kind of important food; the hills grew forests—the most important trees being the sugar maple.

"My early recollections relate to the preparation for the long cold winters, and perhaps first of all was our clothing. We kept a few sheep as did most of the farmers in our neighborhood. Among the farmers there was a Frenchman, who was skilled in shearing sheep and in butchering. There was a small stream or brook, and covering a distance of a half mile, were three dams and millponds, which were used to run saw mills, and these ponds formed a convenient means for washing the sheep. The fleeces were taken to a carding mill, and converted into rolls for convenient spinning and brought home. Every considerable farmer had a rather large house, and one room was set aside for a loom room, where the rolls were spun into yarn preparatory to weaving into cloth, and all our family clothing was made from the cloth woven in my grandfather's house. We had no tailors, and our clothes were cut and made by our mother or grandmother.

"In connection with our carding mill, was a 'fulling' mill, which made a rather finer grade of cloth than our home weaving, and we exchanged a certain number of pounds of rolls for 'full-cloth', and if we belonged to the aristocracy this full-cloth was taken to town and cut and made up by a tailor. Women's dresses were of woolen cloth, perhaps of a little lighter weight. We thought more of good warm clothes in a Vermont

winter than style. Our mittens and stockings were knit at home during the long cold winters.

“For our boots we provided the leather at home. Every fall a cow, which had outlived her usefulness was fattened and butchered by our Frenchman and the hide, with the skins of two or three spring calves, were taken to a nearby tanner and tanned on the ‘shares’, that is the tanner took what toll was fair for the tanning. We had also a shoemaker who in the late fall or early winter made boots and shoes for the entire family. The men’s and boys’ from the cowhide, and the girls’ and women’s from the lighter calfskins. Our shoemaker was an ex-English soldier, who had served many years in all the English possessions. He was very superstitious and fully believed in ghost stories and entertained us children with a variety of the most exciting stories of this kind, and we looked forward to the time that old Mr. Belcher would come for a week to make our boots and shoes. Our home-made boots were not very stylish but they served well in winter. The old cow served us well for boots and shoes and for meat, but in addition the tallow furnished light. For every day use the dipped candle served us well although a little rough and irregular in form, but we could meet this objection by using molds for candles for company use; making six to twelve at a time was slow work, but by dipping we could make a hundred dozen at a time in three or four days. The tallow candle did not furnish a brilliant light but it served well, although if we had three or four going at a time, someone must assume the duty of using the snuffers, which required some skill for it was easy to snuff out the light altogether. I was quite a boy when the kerosene lamp came into use. As I remember it now, the brilliant display of new kerosene lamps brought in by our village storekeeper was the most wonderful thing to see in my youthful days.

“The life of the Vermont farmer boy had but little variety. The village store was the center of political discussion, of state and national ques-

tions. It may be stated that Horace Greely and the New York Tribune were the leading political influences. My first recollection of political activity was during the campaign of Fremont and Buchanan, and of that only the indignation of my father when it was found that Fremont had been defeated.

“The Vermont people were anti-slavery, but were not abolitionists to any great degree. During Buchanan’s administration the forces were gathering that were to lead to the Civil War. I was fourteen when the war began, and with many of my age felt badly treated because we were too young for military services, but not too young to do additional farm work, as the able-bodied men were sent south. The war ended before I was eighteen, the age for military service.”

EARLY EDUCATION

“In the second year of the Civil War, I was sent away from home to begin my school life. The most desirable place seemed to be Franklin Academy, an institution which corresponds to our present high school. This Academy was located in a village two miles south of the Canadian line.

“At this time the modern high school existed only in the larger towns, its place being taken by the ‘academy’, which was a peculiar New England institution for the education of boys and girls living in country districts. Most of the important villages had an academy, some short-lived, but many existed for generations, and some became famous and are even now performing an important function in preparing young people for college.

“A large proportion of young men who contemplated a professional career as medicine or law, based their preparation on a course of study at some of the most important academies, those preparing for the ministry entered and graduated from some college under the auspices of their particular denomination. The courses of study in the academies and colleges of fifty or sixty years ago, included Latin, Greek, mathematics,

WITH the retirement of Dr. David S. Fairchild as active Editor of the Iowa State Medical Journal, it seems particularly fitting that this number of our publication be dedicated to him as a small acknowledgment of his tremendous services to the State Society throughout the past seventeen years. The accompanying biographical sketch of Dr. Fairchild has been prepared by his warm friend, Dr. Walter L. Bierring of Des Moines. I take this opportunity to acknowledge my thanks to Dr. Bierring for the thorough and painstaking fashion in which this labor has been accomplished, realizing the tremendous task involved in collecting the material from so wide a range of sources.

THE EDITOR.

and philosophy as the major studies. A comparatively small number selected English or science courses, but as the laboratory had not come into existence, the instruction was almost altogether text-book, and by lectures. Hence it was thought that English and science courses were chiefly intended for short course students, or those of inferior capacity.

"I followed the study of the classics in Franklin Academy for two years, and then completed a year at Barre Academy under the direction of Professor Spaulding. After completing the year's course at Barre Academy, I taught a term of district school, during the winter of 1865-66, but the conditions and compensations of a Vermont district school teacher were less attractive than that of a farm laborer, and this one term closed my experience in that direction. Nothing was lost, however, as the teaching was only during the winter months."

MEDICAL STUDIES

"About the end of 1865, I conceived the idea of studying medicine. Just how it came about, I do not know, unless of the personal admiration I entertained for our old family physician, Dr. A. M. Brown of Sheldon, a village about two miles north of our farm, and another family friend Dr. J. O. Crampton, who practiced at Fairfield, four miles south. These doctors were frequent visitors at our house, not often professionally as we had but little need for medical services. The personal contact of these men was an inspiration to me aside from their supposed professional skill. I was led to feel that the position of a physician in a community was an honorable and desirable one. The physicians I had come in contact with were educated gentlemen of high ideals and were much respected. Of course I only had an opportunity to see the best and most attractive side of a physician's life. At that time a medical student served a sort of an apprenticeship with an established practitioner for a period of three years, including two courses of lectures of from sixteen to twenty weeks each. So with the approval of my father and mother, I registered or rather applied to Dr. J. O. Crampton of Fairfield, to read in his office. The study of medicine was a serious business with me, and I tried with certain suggestions from Dr. Crampton, to arrange in a somewhat systematic manner, a course of reading. I had first, Wilson's Anatomy; later Gray's, then Dalton's Physiology, and George B. Wood's Materia Medica and Therapeutics.

"While I had decided on a medical course in 1865, I did not take up the study seriously until

May 1, 1866. During the year intervening I was studying French in the village of St. Marys, in the province of Quebec. The school was in charge of Madame leDue, a French lady of culture, who had emigrated to Canada from Paris some years before, and had opened a French school for young people from the states. This village was twenty miles south of Montreal and really was a place in which to live. There were represented the customs of the French peasants of many years. With the exception of a small Baptist mission, all were devout Catholics, and were a happy and contented people.

"I felt the necessity of being able to speak French, because of the number of French people living in northern Vermont, who could not speak English, and also because during the 'Ancient Regime' (Napoleon III) French medicine was in the lead, and much French literature would be open to me. It was during my residence in French Canada that I became familiar with the literature of the medical school at Ann Arbor. It appeared that Professors Frieze and Boice from the University of Michigan had from time to time attended Madam leDue's school, and left considerable literature in relation to the advantages of the medical school of the University of Michigan. It was this that mainly influenced me to later begin my medical studies at Ann Arbor.

"When I reached Ann Arbor in the fall of 1866, I found five hundred and twenty-five students registered in the medical school. Among these were many young men whose course of study had been interrupted by the war, and those whose army hospital experience had stimulated a desire to study medicine. At the close of the Civil War the young men who had taken one course of lectures, or had been inspired to take up medicine during the war, flocked to the medical colleges, for a single course of lectures on which to found a medical practice.

"The rapid development of the western states following the war, and the building of railroads furnished many opportunities for a practice on a minimum of medical preparation. There were no laws governing the practice of medicine, and a man had only to announce himself a doctor to secure his share of practice. As late as 1875, about one-half of the physicians practicing in Iowa, were practicing on one course of medical lectures. As the country became more settled, the one course practitioners turned to one of the numerous new medical colleges for a second course of lectures and a diploma.

"The average medical college course was generally of sixteen weeks duration. There were no

clinics of instructive value, and no laboratories except the dissecting rooms and some attempt in laboratory instruction in chemistry which was voluntary. The course of medical lectures at the University of Michigan was considerably in advance of the period. It was twenty-four weeks in length, and was practically the only school where any laboratory instruction was required, in that a six weeks course in chemistry had to be completed before the diploma was granted. Even at Ann Arbor there was no opportunity at that time to use the microscope, and the lectures on anatomy and physiology were given by the same professor.

"The usual custom prevailed of having all the students en masse listen to the same lectures. The fees were small, \$5 for students residing in Michigan, and \$10 for students outside of the state. The income of the University at that time, not including student's fees, was \$35,000 annually for the entire University, therefore the faculty's salaries was paid by the University. This was quite different from many of the schools then in existence, where all the expenses were paid from the income of student fees. The full faculty generally consisted of seven members; Anatomy and Physiology; Chemistry; Theory and Practice of Medicine; Obstetrics and Diseases of Women; Materia Medica and Therapeutics; Surgery and demonstrator of Anatomy.

"In 1866 and 67, two of our most popular professors resigned to take effect at the close of the session, Prof. Moses Gunn, who had been elected to the Chair of Surgery in Rush Medical College, Chicago, and Doctor Armor to become Professor of the Theory and Practice of Medicine in the Long Island Medical College, Brooklyn. I returned to Ann Arbor in 1867-68 for a second course of lectures, not with the intention of graduating, but from the firm belief that two courses of lectures were insufficient as a reasonable foundation for the practice of medicine. The Chair of Surgery was now filled by Dr. William Warren Green of Portland, Maine, and the Chair of Materia Medica and Therapeutics by Doctor Frothingham, who later became the first professor of ophthalmology and otology in the University. Both these chairs were well filled, and I looked forward to the session of 1868-69 for the completion of my student days, and a diploma authorizing me to practice medicine, of which I knew so little.

"At this time the homeopathic questions became more acute on account of the establishment of a homeopathic department, and the appointment of homeopathic professors. The result of

this action was the resignation of the entire medical faculty, and this threatened to seriously damage the good name of the medical school. The uncertainty existing at the medical school, led me to look over the field of medical colleges, and finally select the Albany Medical College which had a very good reputation in our section of the country. I therefore matriculated in September, 1868, and graduated December 23, 1868."

EARLY YEARS OF PRACTICE

"After receiving my diploma the first important question was where to find a place in which to practice, so I returned home to take the matter under deliberate consideration for a period of six months. My experience with the world was very limited, and when I came to canvass my knowledge and fitness to assume the responsibilities of the practice of medicine, I felt serious doubt as to the wisdom of taking up medicine, but there was nothing now for me but to find a place where a doctor was needed.

"In the early months of 1869, I received letters from a student friend that there were many desirable openings in Minnesota. The Civil War had greatly unsettled affairs and in the early days after the close of the war, there was an active migration of young men, single and with families, to the West, in the Mississippi Valley. With the exception of a few cities of considerable size there was no certainty as to where the desirable places would be located. Railroads were being built rapidly, particularly in Minnesota and Iowa, and desirable towns and cities were certain to grow up with the rapid settlement of the country, and towards these spots the eyes of young professional men were directed.

"The effect of the Civil War on the Vermont villages was scarcely less than on the rapidly growing West. After considering the apparent opportunities for a practice in Vermont, I concluded to follow the advice of my friend in Minnesota, Dr. Burney J. Kendall, who had studied with a doctor in a neighboring village in Vermont, so in April, 1869, I started for Minnesota and on May first located in the village of High Forest, about fifteen miles south of Rochester. High Forest was an attractive village of about two hundred and fifty people, with a fairly well settled country. To the west, settlement extended about eight miles but beyond that it was an open prairie for many miles. Many of the settlers were old timers and had provided themselves with comfortable farms and homes, and many more had lived with little gain or progress.

"A railroad had been constructed from Winona to St. Peters, the Winona and St. Peters (Northwestern). There was no direct rail connection between Chicago and Winona and we came to LaCrosse by rail and from LaCrosse to Winona by boat and to Rochester again by rail, where I met my friend Doctor Kendall who was practicing in Marion, Olmsted county. I found that events had turned to my interests. In 1868, the legislature of Minnesota had passed an act that prohibited one from practicing medicine in the state unless a graduate of some reputable medical college, or had passed an examination before a committee of the State Medical Society, and received a certificate signed by the president, vice-president, and secretary of the State Society. This law was repealed at the next session of the Minnesota legislature on the ground of an insufficiency of educated doctors to meet the requirements of a new and rapidly growing country, and that the people were entitled to any kind of medical services they could secure. It was also claimed that the law was in favor of the 'old school doctor'.

"As a war measure, an annual federal registration and license fee of ten dollars was imposed on physicians engaged in the practice of medicine, which was repealed at the next session of Congress. Provided now with a diploma and a federal license, I was legally equipped to offer my services to the public.

"My friend, Doctor Kendall, remained only one year after my arrival in Minnesota, when he returned to his native town in Vermont. After returning to Vermont, he became convinced that the practice of medicine did not offer much in the way of a fortune, and began a series of experiments in the way of patent medicines. In the course of time he fell on a combination of drugs which was thought to have a beneficial effect on spavin in horses, and by skillful advertising gained a considerable reputation among farmers and horsemen. For many years 'Kendall's Spavin Cure' had a wide reputation. The pictures of a fine horse and handsome women ornamented the walls of drug stores everywhere, and fine teams of horses and wagons could be seen on all important highways, and Kendall's 'Spavin Cure' was a household name far and wide. But Kendall's future was not happy, for he was not skilled in high finance. A combination forced him to sell out his interest for which he received a considerable sum, \$100,000 or \$200,000, a considerable fortune fifty years ago. He invested in some drug interests in Saratoga, New York, and later in real estate in Omaha, during boom

times, resulting in a very material shrinkage in his fortune. I saw Kendall but once after he left Marion in 1870. In 1926 I saw a notice of his death in an obscure Minnesota town. While Doctor Kendall was living in luxury, on money secured by quackish methods, I was struggling to make ends meet, but in a comfortable state of mind, feeling that I was upholding the ethics of the profession which was denied my oldtime friend.

"I was now twenty-three years old, I had had no experience with people as a doctor, especially western people, I had spent my years in school, and had been accustomed to address older people as Mr. or Mrs., but was soon advised to call everybody by their first name and lay aside certain 'high toned' notions of the New Englander and of the professional man, to forget what was known as professional dignity and accept the title of 'Doc'. In our New England communities the village doctor was a person of distinction, he was an educated gentleman, and when he had become 'established' in practice was much respected. He wore a silk hat, a Prince Albert coat, and when possible cultivated a flowing beard. All of which contributed to his professional success, even more than his medicines. When I entered High Forest on horseback with plug hat and Prince Albert coat, I was presenting myself in proper professional form. This was about the beginning of a change in professional customs, the silk hat, and the formal coat were troublesome for every day use, and were reserved for formal occasions, but the beard had a stronger influence on the popular mind.

"The village of High Forest wanted a doctor, a real doctor, of somewhat different type from what I appeared to be, but as the nearest doctor was fifteen miles away, Rochester, they were willing to try me. The traditions I had inherited were not so firmly fixed that I could not part with many of them, and this gave me the first opportunity to measure the mass mind. Here was a community fifteen miles from the nearest doctor and yet they were inclined to make conditions such as a self respecting young doctor could not afford to accept. But when I had emphatically informed the people that I was not a servant, nor would I permit too much familiarity, this attitude soon had a good effect.

"The Medical Practice Act, passed by the legislature of Minnesota in 1867 or 1868, which had created so many vacant places by suppressing the uneducated doctor, was repealed and brought back my predecessor in High Forest. He was distinctly a man of the people. He had served in

the Hospital Corps in the Civil War, but had never read medicine with a preceptor or attended medical lectures. He had purchased a supply of homeopathic medicines and offered himself as a homeopathic doctor, and an active Methodist. With these mass-mind qualifications, my opponent had certain distinct advantages, but the time generally comes for a real test. For the first year the new 'Doc' did not gain much favor with the people, as it was looked upon as an arbitrary measure passed in the interest of the 'old school' doctors, and of course I was one of the beneficiaries of the law, it was easy to see this added to my difficulties. The doctor referred to was only theoretically barred from practice, remained in the background and could easily be found. It was within the first two years that the law was repealed. It was rather humiliating to me to see an ignorant man with no medical training get the patients, but I could only wait.

"I had an abundance of leisure to study my cases and write them up, uninteresting as most of them were. I must confess, however, from my own point of view, my services were of but little real value. I had seen very few clinical cases in my medical college work, but I had come to believe from observing my preceptor's practice that from his knowledge of medicine and training, he must know just what medicines would cure his patients, but when I came to the bedside of a sick patient on my own account and responsibility, practice did not look so simple. There was at that time no science of medicine, the best we could do was to make a diagnosis as to the nature of the disease and select a medicine which experience had shown to be best suited to the case. I had a few standard works on the practice of medicine, on materia medica and therapeutics and obstetrics, which I read more or less secretly, for it was believed by many people that a doctor must know all about medicine from experience and natural gifts in understanding the mysteries of disease. I felt the need of further knowledge on current events in the practice of medicine, and subscribed for the Medical News of Philadelphia, a monthly journal, price one dollar per year. The next year I added the American Journal of Medical Science, issued quarterly, and the third year Braithwaite's Retrospect, published twice a year, and the fourth year, the Medical Record of New York, published every two weeks.

"In small as well as in larger communities, emergency cases would sometimes occur of a more or less serious character. One night a year or more after my arrival in this village, I was called to the home of one of our leading families to see

the wife in confinement. The lady had been in labor for many hours and was much exhausted; although she had borne other children in a normal and easy manner, this child was large, and as she was near the end of the child-bearing period, the maternal parts did not give as on former occasions, the labor was greatly prolonged. There was great confusion in the house and the family and friends were greatly alarmed. The good doctor, my competitor, had exhausted his resources and was ready to transfer the responsibility. There was really no serious complications, and as they were willing to have forceps applied, I administered chloroform and delivered her without much difficulty. The child was rather slow in taking up independent respiration, but after a somewhat prolonged artificial respiration, the infant showed unmistakable signs of life. The mother and child lived many years. This experience changed the whole atmosphere, as far as I was concerned, and this family and their numerous neighbors became my firm friends, and brought many patients to my door. This was a time when the relations of physicians to the public were quite different from now. It was in the time of the family doctor who could rely on the character of his work.

"About a year later, there came an emergency call to the home of an insane Irish farmer, living about eight miles in the country, in a most out of the way place, in a miserable hut with one room with a dirt floor and a lean-to, also with a dirt floor. The only furniture consisted of a most irresponsive cook stove, a few benches and chairs without backs, and piles of straw covered with ragged and dirty blankets. The house afforded but little protection as the rain and snow would beat in. Besides the father and mother were two small half-starved and almost naked children. The few and rather distant neighbors did not recognize the insanity of the father, but rather attributed the condition to a lazy and good-for-nothing man, but to keep the mother and children from starving, brought in food from time to time. The time I speak of, was in the month of March, and how they passed through the winter was difficult to determine. There was no coal, but by collecting a few sticks of wood for the miserable stove and lying under what blankets they had, on piles of straw, a most pitiable condition existed. The occasion of my visit was in consequence of the man trying to kill his wife with an ax. It appeared that the man first struck his wife on the head with the ax, but the blow was a glancing blow, which turned a wide flap of the scalp which fell over and covered her

eyes. The second blow divided all the muscles of the neck, but did not reach the great blood-vessels. A third blow delivered was on the back of her hand dividing all of the metacarpal bones, including of course the extensor tendons of the hand, and other lesser injuries.

"The children ran to the nearest neighbor about a half mile away. As it was before the day of telephones, a messenger was dispatched for me as the nearest doctor, while others guarded the man. As the roads were impassible for a buggy, I gathered a few things, got on horseback and made as good time as possible. There was no other doctor nearer than twenty miles, so I was thrown on my own resources. I did not take the patient to a hospital, as there were none. The neighbors had gathered wood and notwithstanding the cold March winds, the house was fairly warm. The woman was lying on a pile of straw. I got down on my knees to examine the patient to see what should be done. We knew nothing about germs or antiseptic methods so we had no worries on the score of blood poisoning. Our only ligatures or sutures were silk. A teakettle of hot water had been prepared, so with some rags or dressings I brought with me, I dressed the wound as well as I could. The woman was semi-conscious from loss of blood, shock and fright. I threaded a needle with silk and anchored the scalp flap, as well as the big muscle of the neck and the skin. Of course I cut one end of the deep sutures and left one end long enough to hang out of the wound, as was the custom then. I did not attempt to close the wound tight, so that there was good drainage. I was not prepared to take care of the hand, so I left the dressing of it until the next day. The dressings were not ideal, only such clean rags as I had with me and what the neighbors brought. There was not a clean thing in the house except the hot water in the kettle. I did not know when I left home what I had to contend with, and had only what I could carry on horseback, but I had some morphin and quinin which were sorely needed. I remained well into the night, in fact it was dark when I arrived. Some neighbors brought tallow candles, and it was by the uncertain light of candles that I could do anything at all. When the emergency work was completed and the woman made comfortable on a pile of straw and a dose of morphin administered, some of the neighbors arranged to watch by the woman until morning, while the men took charge of the man. It was important that care be observed in treating the hand, so in the morning I devised a splint for the palmar surface of the forearm with a ball at one

end that fitted the palm of the hand, and with adhesive straps passing from the divided metacarpal bones along the dorsal surface of the fingers well down on the palmar surface of the forearm, and by binding this splint firmly, extended the bones to their proper places, one strip for each of the four fingers. Before applying the splint, I sutured each tendon. All this resulted in a very useful hand. It was necessary to visit this woman almost daily for several weeks. It was just a day's work to make a visit on horseback on account of the condition of the roads. The husband, Mr. O'Donnough, was tried, found guilty and sentenced for life in the penitentiary. He was believed to be insane, but at that time Minnesota had no institution for the care of insane criminals. He died about two years later. In regard to the woman, she made a good recovery without accident.

"These were rather trying experiences for a young doctor who had lived under different conditions, but occupying a field of practice fifteen miles from any professional associate, left no choice. In those days in calling a doctor, a messenger must be dispatched on horseback and before assistance could arrive, some thirty or forty miles must be traveled, consuming nearly an entire day, a delay that might prove fatal. It is true that such emergency cases did not often occur, but often enough to try the resources of the young doctor. It was generally expected that when the young man had accumulated sufficient experience to warrant it, he would secure a more desirable field.

"As time passed, I found myself adjusting my relations to my farmer friends, and having convinced the people that my services were of some value, a degree of mutual good feeling grew up and life became agreeable and pleasant, and I began to feel that I was one of the community and enjoyed the adventures of a country doctor.

"In 1870 I married Miss Wilhelmina C. Tattersall, whose father was hotel keeper, postmaster and leading influence in the town. He had emigrated from New York City in 1857, in the belief that the West had its opportunities. He had been engaged in the real estate business in New York City. At that time Minnesota was without railroads; and coming under the influence of LaCrosse, people located in High Forest in the firm belief that the first railroad would run west into Minnesota through this place. But the Winona people were first in the field, and the first East and West road was built from Winona through Rochester, known as the Winona and St. Peters, which ran fifteen miles north.

"The next road, the Southern Minnesota, was being surveyed when I located in High Forest, but was finally located ten miles south. A later enterprise was a plan to induce the legislature to grant a liberal appropriation of the 500,000 acres granted the state for internal improvement purposes, to the building of a road from Wabashaw through Rochester southwest into Iowa. T. H. Armstrong, who was lieutenant-governor when I arrived, and afterwards state senator, engineered the bill, which succeeded as far as the legislature was concerned, but the governor vetoed the bill, and our last hope for a railroad disappeared, so we settled down to wait. I was now married, and in a year our first child was born. We had secured a log cabin with two rooms, a living room and a bed room, in which we enjoyed ourselves, but as the roof was defective often after a heavy fall of snow I was obliged to climb up a ladder to shovel out the snow under the roof to save being flooded below.

"The village was beautifully located in the bend of the Root river, and as a considerable part of my practice involved crossing the river many times, new adventures soon developed. There was one bridge at the village, and another four miles east at the site of a grist mill. The first was a low bridge which to avoid being washed out at high water, was weighted down with heavy stones, so the water could run over, sometimes to the depth of two feet or more, and sometimes indeed, impassable. At the lower bridge, the river ran through a gorge, which permitted a bridge high enough to be beyond the reach of the highest water. The village bridge was usually under water after a heavy rain, and when the snow was melting. At night time when the water was high it was dangerous to cross because it was impossible to see just where the bridge was, and if one should miss the bridge there would be great danger of being drowned. To illustrate one of many experiences, one night I was called before dark to attend an obstetrical case. The snow was melting fast and to accelerate matters a warm rain began, and when I returned about midnight it was so dark I could not determine where the bridge was, I could only hear the rush of water and assumed the water was running over the bridge to the depth of three or four feet. On either side of the bridge the water was eight or ten feet deep and running with great force. If I missed the bridge, I was almost certain of being drowned, or at least lose my horse. After some hesitation I turned back where there was a straw stable about a half mile away, removed the saddle, tied my horse, found some straw and

made myself as comfortable as possible until daylight came when I could see where the bridge was, and cross safely.

"On another occasion I was called eight or ten miles in the country to attend a woman in confinement, this time with horse and buggy, forded the river at a well known crossing (Rud's Ford). During my absence a very heavy rain storm came up, which lasted nearly all night. As this was the last house in the settlement, at the very border of a prairie of twenty miles in extent, I remained all night. In the morning when I returned the water was very high. I did not know how deep the water was, so I removed my clothing, which I could properly do as there was no house near, and swam across, testing the depth of the water, but as I could not reach bottom and as there was considerable current I swam back, unharnessed my horse, pulled the buggy back out of reach of still higher water, placed the harness with my medicine chest, made a bundle of my clothing, detached one of the reins so as to give my horse abundant freedom, so we would not come together in the water, held my bundle in one hand above the water, led my horse into the river, and we both swam to the other shore where I put on my clothes and rode home. As soon as the water had subsided I returned for my buggy. I had many similar experiences in my four years in Minnesota.

"One of the first of my medical friends in Minnesota was Dr. W. W. Mayo, with whom I contracted a very close professional relationship which has continued down to his distinguished sons, covering a period of nearly sixty years. In the summer of 1869, when I had been in High Forest about six weeks, one Sunday morning I was called to a house about six miles on the Rochester road in a neighborhood known as 'Yankee Ridge', although nearly all the people living there were Irish. The man of the house was a Roman Catholic, who had died suddenly. The priest had been called, and he had insisted that a postmortem be made. They called Dr. W. W. Mayo and myself to make the autopsy, to ascertain the cause of death. It was an event that excited the interest of all the surrounding country and a great number of people had gathered. I was not very busy and responded promptly. With Doctor Mayo it was quite different, consequently I waited for his arrival several hours. In the meantime, as the weather was fine, a great crowd had gathered to watch the operation. When Doctor Mayo arrived he looked me over, called me aside and asked me if I had a postmortem case. When I assured him that I

had, he asked me to bring it out and perform the operation, and he would act as my assistant. He said that I was a new doctor and as there were many witnesses present it might do me some good in showing what I could do. I appreciated the generous act, and proceeded with the autopsy. It was a simple case, the man had died from a rupture of an aortic aneurysm. Doctor Mayo asked me many questions, and assumed to know less about the case than I did, which had a great effect in bringing me much valuable practice, and in view of the fact that this community was about half way between High Forest and Rochester, and as much in his territory as in mine, I never forgot Dr. W. W. Mayo's generosity.

"The life of a country doctor in a small town in the days I am writing of, offered very little in the field of medicine, and to give it any degree of fullness, it was necessary to fill it with civic and social activities of small things. Locally so far as social matters were concerned there was absolutely nothing. I had become a member of the Olmsted County Medical Society, but on account of the distance and the frequent bad conditions of the roads, I could not attend very regularly. The Minnesota State Medical Society met twice a year, and although I attended all its meetings, it was only a brief relief to the monotony of a country doctor's life. There were no books accessible. The Atlantic Monthly and two or three journals furnished all the periodical literature within reach.

"I have already mentioned some of the emergency experience in a new country many miles away from any source of professional aid, but more interesting was the every day practice. With my preceptor I had learned how to administer medicine to sick people, and in a somewhat routine manner what medicine to give in certain disease. Typhoid fever was our most important disease, or at least, occupied the attention of the profession to the greatest degree. No thought was given to quarantine in contagious disease. It is true that the more intelligent people avoided as far as possible, contact with diphtheria and scarlet fever and vaccinated against small-pox, but as there was no regulations these diseases sometimes had widespread prevalence. Tuberculosis was a rather common disease, and was regarded as hopeless and incurable. Pneumonia was also a common affection. These diseases I often had an opportunity to see. The medicine was never given in the form of a written prescription, but made up in the form of powder or solution at the bedside of the patient, the size of the dose was guessed at, so the doctor became

rather expert in estimating the quantity. There were no trained nurses, and nursing aid was a neighborhood affair. It often became a serious matter if more than one or two cases of typhoid fever at a time occurred in a single neighborhood. Two neighbor women joined in watching at the bedside of a sick patient.

"In typhoid fever, quinin, and the turpentine emulsion of George B. Wood, were the chief remedies. When the patient was restless, sleepless or delirious, Dower's powder was the chief reliance. If the fever was high James's powder (a secret powder prepared by Dr. James of London) was employed although we did not know the degree of fever, as the fever thermometer had not been introduced, and it was some five years after I began practice before we had such a means of determining fever, and then they were not self registering.

"After a little more than three years practice in Minnesota, we made our preparation to leave for a new field of professional activity. I had learned many things in the three years I had lived in High Forest, as my previous contact with the world, particularly in the field of medicine, had been very limited.

"I had married a young lady who had lived most of her life in this village; nearly all her family and friends were here, or nearby. It was no small sacrifice to give up her friends and go among strangers. We had been married two years—in 1872—and had a small boy born, but she, like myself, was convinced that there was no future for a professional man in High Forest, and without hesitation prepared for the change.

"After we had definitely settled on a change of location, the serious question that came up for consideration was where we should go. Following the Civil War there came a period of 'deflation', which the present generation know something about, but was not well understood then. In addition to the war reaction came the failure of wheat in the better settled parts of the state, and, as Minnesota knew no other than wheat farming, the outlook was not promising. During this period of uncertainty a letter came from a young physician whose acquaintance I had made while a student at Ann Arbor. He was a native of Rochester, Vermont, and during our student days we had much in common. After graduating from the medical school of the University of Vermont, Dr. Albert Richmond followed a group of young men from his native town to Iowa and settled in Ames. In a letter from Doctor Richmond in 1872, he presented an attractive account of Ames, and advised me to consider locating

there, especially as he was about to return to his native village in Vermont. Although Ames was only a small village of about 800 people, the location there of the Iowa State Agricultural College gave some promise for the future. Ames had been located but a few years, on the completion of the Chicago Northwestern Railway, and the Agricultural College had opened for its first classes in 1868.

"After making our decision, it therefore followed, that on the tenth day of July, 1872, we gathered together the few things we had and sent forward by rail what we could not take with us in a trunk, strapped on the back of a Concord buggy, and made the journey from High Forest, Minnesota, to Ames, Iowa, with one horse and buggy, with our son* about one year old. The weather was warm and the season dry, so we had no interference from rain and mud. Our first day's journey was to Austin, Minnesota, where we remained over night. The second day we reached Plymouth, Iowa, where we rested for the night, then on to New Hampton, Mason City and Iowa Falls. We left Iowa Falls at 7 a. m. and reached the last house about 8 a. m., where we inquired the way across the wide prairie to Ames. The man said he did not know much about the country beyond and he did not know where Ames was, but he thought it was somewhere southwest, but did know of a place called Story City; he also informed us that a man from Story City had driven across the prairie about a week before. He also said there was no road but he thought as there had been no rain, we could probably follow the Story City man's trail. He gave us the welcome and very important information that the sloughs were dry and safe. So we started out in a southwest direction, with our eyes closely fixed on the trail, hoping to reach Ames or some other place for the night. We found, as the obliging farmer said, the sloughs were dry and the trail could be followed by exercising watchful care. About three o'clock in the afternoon we saw in the distance some attractive farm buildings, particularly attractive to us, as we had driven seven hours without seeing a house or building of any kind, or any evidence of settlement, and we were not quite sure that we had followed the right trail. The weather was fine and the journey would have been attractive with better roads. We found two families, brothers, who had located on two sections of land about fifteen miles from Story City, engaged in dairy farming. The place was called the 'Carhart Farms'. In after

years in traveling over this country, we were never able to locate these farms, but were able to find the Lone Tree described to us.

"These people were very glad to entertain strangers from the outside world and gave us what we most needed—refreshments for both man and beast. After a short period of rest we resumed our journey. The objective now was Story City and Ames. We were informed we would not find any roads until we reached Story City, and what we would find beyond, they could not say. We were to pursue a southwest course, and after traveling about five miles we came to a brook and on the farther bank a lone tree, although a small tree, it was the only tree in sight. Another five miles brought us to the outlying farm houses of Story City. At last we found Story City itself. The town was a trading station with a considerable settlement to the east, and consisted of two general stores on the banks of Skunk River, and a few small houses. All the people were Norwegians and had only provided shelter for their personal needs. It was now six o'clock p. m., and to find shelter for the night was important as we were still twelve miles from Ames. But no one could keep us, and the only thing for us was to drive on. It seemed to us that we were in a foreign land where courtesy was unknown, but we found there were farm houses where we could inquire the way to Ames, which gave us assurance, but practically no road to follow.

"A few years later a considerable influx of Norwegians settled in and about Story City, and when my practice extended among them I often thought of our welcome to our new field, and of the depressing effect which caused us to feel at that time, the wisdom of turning back. We got along very well until we came to a bridge, and what appeared to be a mill, about three miles from Ames (Hannam's Mill). Unfortunately we crossed the bridge and found ourselves lost in a forest. After an hour or two of great difficulty we came out of the woods. It was about midnight when we found a house, where we could ascertain where we were. After considerable difficulty we aroused an ill-disposed man, who abused us roundly for disturbing the sleep of an honest man. Finally we secured enough information to enable us to find Ames—but two miles distant—where we secured a comfortable lodging at the West Hotel."

PRACTICE IN IOWA

When Doctor Fairchild came to Iowa in the summer of 1872 he was equipped with the best

*Dr. David S. Fairchild, Jr., Lt.-Col. M.C., U. S. Army, formerly Colonel, Chief Surgeon 42nd Div. (Rainbow) A. E. F.

medical training of the period, and a background of more than three years of experience in country practice in an adjoining state. Add to this, the enthusiasm and courage of the pioneer, and success seemed assured in the new field. Mrs. J. K. Macomber of Des Moines, a member of the first graduating class of the State Agricultural College, met him soon after his coming to Ames, and speaks of it in the words: "A handsome youth, with the stamp of education and good breeding, and a beautiful young lady for a wife."

He was introduced to the new community by Dr. Albert Richmond, who lived in Ames about three years, and was a man of culture and fine personal address. He had among his adherents, President A. S. Welch of the Agricultural College, the leading merchants, the banker and the postmaster, several of whom were friends and associates of his old Vermont home. As Doctor Fairchild had been brought up under similar environment, it was not difficult for these people to transfer their allegiance to him. One year after locating in Ames, he was appointed college physician, which brought him into closer touch with an academic atmosphere which must have been very pleasing to one so inclined towards the cultural aspects of life.

In this sphere he formed many desirable friendships that were helpful in his professional work, but a medical practitioner locating in Ames, then a town of 800 people, must necessarily depend largely on the country community for his practice. This entailed frequent hardships mainly because of the physical condition of the roads. Only a few of the roads were fenced, and were so bad that for a part of the year the only practical way of visiting patients was on horseback, and it was sometimes a good day's work to visit two patients. The interesting experiences of country practice in Minnesota previously related by Doctor Fairchild had many a counterpart in central Iowa fifty-five years ago. Success in those days meant a degree of personal sacrifice, courage, and determination not ordinarily seen, and what success and reputation was finally secured was well earned.

With rather fragmentary records of medical events, and only limited accounts of the annual proceedings of the State Society, it is somewhat difficult to follow in proper sequence the happenings of four and five decades ago.

His interest in medical society fellowship is evident even during this early period. While in practice in High Forest, Minnesota, he came under the influence of Dr. W. W. Mayo of Rochester, and at his suggestion in 1870 he joined the

Olmsted County Medical Society, and a year later the Minnesota State Medical Society. In a personal note Doctor Fairchild states - "I do not recall anything particularly interesting in the meetings of the Olmsted County Medical Society, except that of the dozen members Dr. W. W. Mayo was easily the leading influence. As I lived fifteen miles from Rochester, and the roads were generally bad, I did not attend very regularly. The most important events so far as my memory goes were the occasional invitations to dinner at Doctor Mayo's house, where I saw W. J. and C. H. running about in short pants. Dr. W. W. Mayo induced me to attend the third semi-annual session of the Minnesota State Medical Society at Minneapolis, June 13, 14, 1871, and I was there elected to membership. I also attended the following annual meeting in 1872 at St. Paul, and the fourth semi-annual meeting at Rochester in June, 1872.

"These were the first important medical meetings that I had ever attended and as the men were the leading doctors of Minnesota, it very naturally left a lasting impression on my mind and served to fix their names in memory. The most important events that come to me now was the fact that Dr. Franklin Staples of Winona was president in 1871, and Dr. W. W. Mayo was elected president in 1872. I recall Dr. A. J. Stone, who was editor of the Northwest Medical and Surgical Journal, and had much to say. Dr. Stone had just moved from Stillwater to St. Paul. Drs. A. E. Ames, N. B. Hill and C. P. Adams presented a report as delegates to the San Francisco meeting of the American Medical Association. San Francisco was a long way off, and it was only a few years since the Union Pacific Railroad had been opened, so that I was deeply impressed by the story of the trip.

"Although fifty-seven years have passed since I became a member of the Minnesota State Medical Society, I feel that it was a fortunate event in my life, which I often refer to with no little satisfaction. I recall the old Nicolett Hotel—our headquarters—with particular pleasure, and when I am a guest of the new imposing Nicolett I conjure up the ghosts of the men who inspired the warm feeling I have for the medical profession. These men were ancient as measured by present day standards, but they were men of character and honor, qualities which are sometimes forgotten in these modern days."

In the proceedings of the State Society meeting at Marshalltown May 28, 1873, it is noted that Dr. D. S. Fairchild was admitted a member by invitation. At this meeting he met a former class-

mate at Ann Arbor, Dr. E. F. Clapp of Iowa City, who introduced him to Dr. W. D. Middleton of Davenport, beginning a warm friendship that lasted until Dr. Middleton's death April 5, 1902.

At the meeting a year previous a new constitution and by-laws had been adopted making the State Society a delegate body, requiring that new members could be elected only as delegates from a recognized county or district medical society.

This may have been a determining influence, for on June 19, 1873, five physicians met in Doctor Fairchild's office to consider the formation of a county society, and on July 17, 1873, the Story County Medical Society was formally organized with Doctor Fairchild as the first president.

In the annual transactions of the State Society meeting at Des Moines, January 28, 1874, it is recorded that Dr. D. S. Fairchild of Ames was elected to membership as a delegate from the Story County Medical Society. Thus began his affiliation with the Iowa State Medical Society, to which during the succeeding fifty-four years he has given the most untiring and devoted service. At this meeting he was also elected a delegate to the American Medical Association, and his membership in our national organization dates from that time. This association met in Detroit, Michigan, June 2, 3, 4, 1874, with Dr. J. M. Toner of Washington, D. C., president, and Dr. Wm. Atkinson of Philadelphia, secretary.

In June, 1874, the Central District Medical Association was organized at Boone, Iowa, and Doctor Fairchild is listed as a member of the first board of censors. Again referring to the proceedings of the State Society meeting in 1875, held in Des Moines, we note that Doctor Fairchild was a member of the nominating committee. This meeting also marks the beginning of his work as the medical historian of Iowa, as a committee was appointed to prepare a history of medicine in Iowa for the next annual meeting—centennial year—1876. Of the five members appointed on the committee, Drs. J. Williamson, Middleton, McCulloch, Thrall, and Fairchild, only the last remains.

At the meeting of the State Society in Des Moines, May 26, 1876, Doctor Fairchild made the report as chairman of the Committee on "Medicine in Iowa from its early settlement to 1876"¹ which is now treasured as one of the historical classics of Iowa medicine.

At this session the brilliant surgeon, Dr. W. F. Peck of Davenport presided. He was then only thirty-five years of age; chief surgeon of the

Chicago Rock Island and Pacific Railway, dean and professor of surgery in the State University Medical College at Iowa, and in the very prime of his career. His address was a scholarly review of the practice of medicine and surgery during the Revolutionary War period. Certainly no more handsome or forceful personality has passed across the stage of Iowa medicine.

At this meeting Doctor Fairchild was elected a delegate to the International Medical Congress in Philadelphia, September 4-9, 1876, which he attended, as well as the annual session of the American Medical Association, and there gained his first personal contact and acquaintance with medical leaders in this country and those of other lands.

Again using the Doctor's own words—"The most interesting feature of the Congress was a lecture by Joseph Lister on the culture of germs. He had before him a laboratory table on which were racks of test tubes showing the effect of inoculation of culture media. Lister in a two hour lecture pointed out the many things to come. No one seemed to understand Lister. The nearest seemed to be Samuel D. Gross of Philadelphia, but who insisted that the thick creamy pus from a wound was the most encouraging evidence of healing. Louis B. Sayre did better, he insisted that hip joint disease was due to infection, and believed that Lister was right."

Because of economic conditions, the keeping up of professional relationship and attendance at medical meetings must have required considerable sacrifice. It was a time when corn, oats and other farm products brought from ten to fifteen cents per bushel in the market. When the farmer was obliged to haul fifty bushels of corn or oats to the market to satisfy a doctor's bill of five to eight dollars, neither the farmer nor the doctor got much for his work. During the first ten years, to "balance the budget" must often have been rather difficult.

In the annual transactions of the State Society and the medical journals that appeared later, and by his own writings, one may trace his developing interest in and increasing familiarity with the different subjects of scientific medicine.

An important event in his early career in Iowa was the appointment as professor of physiology, comparative anatomy and comparative pathology in the Veterinary Medical School, when it was established at the State Agricultural College in 1879. His teaching duties required the delivery of three lectures a day from 8 a. m. to 11 a. m., and conducting a microscopical laboratory course two afternoons a week of two hours each.

1. Journal Iowa State Medical Society, vol. i, 1911-12.

While the teaching interfered greatly with professional work, it stimulated an interest in microscopy, and further studies in physiology and pathology particularly as related to the diseases of human beings and the lower animals. Furthermore it meant the advent into the field of medical teaching. A few years later in 1882, with the establishment of the College of Physicians and Surgeons (Drake University Medical School) came the appointment as professor of pathology and medicine, in due time the professorship in surgery, and finally dean of the Medical School. Nevertheless it was the early teaching period that stimulated real interest and provoked that more intense study of the fundamental sciences which had such an important bearing on his future success in the clinical fields of medicine and surgery. His knowledge of microscopy was largely the result of self-instruction. There had been no previous opportunity to look through a microscope, except to observe the circulation of the blood in the frog's web, until the time when he became the proud possessor of a microscope about 1878.

At the session of the State Society in Des Moines, January 27-29, 1880, a section of microscopy was organized, and among those present at the preliminary meeting were Dr. J. J. M. Angear, Ft. Madison; Dr. W. W. Middleton, Davenport; Dr. A. G. Field, Des Moines, and Doctor Fairchild, Ames.

During the winter of 1880-81 he was able to attend the hospital clinics in New York City for a short period. There were at that time no organized post-graduate clinics, and so he was able to secure only such instruction as was given to undergraduate students.

It was the period when very few physicians were concerned with the microscopic study of normal and pathological tissues, or that of pathogenic bacteria. It was not until two years later, in 1882, that Professor Koch startled the medical world with the discovery of the tubercle bacillus and the demonstration of its causative relation to all forms of tuberculosis.

Bacteriology was in its infancy, and aside from the bacillus of anthrax and that of leprosy the knowledge of pathogenic microorganisms was limited. The Klebs-Loeffler bacillus in diphtheria and the Eberth-Gaffky bacillus in typhoid fever were not described until 1884, and it was several years before they were accepted as the causative factor in these diseases. The inspiring influence of Professor C. E. Bessey of the department of botany no doubt stimulated studies in bacteriology at the Agricultural College, as did

that of Professor Thomas H. Macbride at the State University of Iowa.

At the State Society meeting in 1884 Doctor Fairchild acted as chairman of the section on microscopy, and presented a report that forms interesting reading today.

Reference is made to the tissue changes which occur in the kidneys in Bright's disease of the kidney, and the following is quoted: "What has been accomplished by the aid of the microscope in working out the structural changes occurring in this disease, and the associating of them with the clinical history, may be extended into every field of pathological investigation, into diseases affecting the circulatory system, the glandular and nervous system, etc. An extensive literature has been developed on this subject, and no medical education is now considered complete that does not include a greater or less amount of instruction in this direction."

The account of the discovery of the tubercle bacillus, and the experiments connected with it, shows a complete familiarity with the original article of Professor Koch. The concluding paragraph reads—"While our knowledge of the exact relation which microorganisms bear to disease is extremely limited, yet it is in this direction that we must look for light which shall in the future clear up the many apparent mysteries that now surround infectious forms of disease."

The research spirit is revealed in the article on Crotalism published in September, 1884.² This pertained to some investigations made upon a new disease in horses, prevailing in the valley of the Missouri river for several years. The work was carried on in Monona county during August, 1884, in conjunction with Professor Stalker, state veterinarian, and Dr. J. C. Milnes, V.S., of Cedar Rapids. The disease was due to the eating of loco plants *crotalari sagittalis* which grew in quantities in the Missouri Valley. The symptoms were stupor, great muscular weakness, especially in the hind quarters, followed by paralysis and death. The autopsies showed marked congestion in the liver, spleen, lungs and intense hyperemia of the pia mater, and hemorrhagic areas in the substance of the brain and spinal cord. The disease was also produced experimentally, with the same findings. It was a very complete investigation and a distinct contribution to the knowledge of the subject.

The article on Spinal Concussion³ indicated a careful study of the anatomy and physiology of

2. Iowa State Medical Reporter, vol. ii, No. 3, Sept., 1884.

3. Iowa State Medical Reporter, vol. iii, No. 3, Nov., 1885.

the central nervous system, and an advanced knowledge of neuropathology.

In 1887 appeared a comprehensive article on the subject Actinomycosis⁴ which indicated a very complete understanding of this disease, as well as continued interest in comparative pathology.

At the State Society meeting in Sioux City, May, 1887, he presented a report on the pathology of tuberculosis which reads very much like discussions on that subject today. It includes a careful review of the researches of Koch, Bollinger, vanRecklinghausen, Germain-See and Prudden in establishing the specificity of the tubercle bacillus. The atmospheric transmission of tuberculosis by means of sputum, and the predisposing influence of bad air, poor food, and unhealthy surroundings are carefully considered. It also includes a logical discussion of surgical tuberculosis.

One of the most interesting contributions of this period is the publication of the article on Addison's Disease.⁵ Four cases of this disease being reported, observed in eighteen years of practice, which is an unusual experience even in this later day.

Beginning in 1883 the publication of unusual cases appear at frequent intervals. In the first number of the Iowa State Medical Reporter, July, 1883, he reported seven cases of scarlet fever that occurred in March and April, 1883, at the State Agricultural College. It is a study in epidemiology, emphasizing that each patient be isolated until after desquamation is complete, and the room formerly occupied, with all the clothing and furniture, be fumigated by burning two pounds of sulphur for every 1000 cubic feet of space. Under this plan an epidemic among the students was averted.

In October, 1883, appeared the article, "Death from Syncope Twenty Hours After Delivery",⁶ and in March, 1884, "Brain Lesion Accompanying Pregnancy",⁷ both indicating the author's ability to logically interpret clinical symptoms.

His continued interest in the general sciences is indicated by the prominent part taken in organizing the Iowa Academy of Sciences in 1886. The idea was conceived by Professor C. E. Bessey, department of botany, Iowa State College, who requested Doctor Fairchild to correspond with a small group of medical men in Iowa interested in scientific matters, and meet in Iowa City for the purpose of organization.

The charter members representing the medical profession were Drs. W. D. Middleton, Davenport; P. F. Farnsworth, Clinton; Elmer F. Clapp, Iowa City; A. G. Field, Des Moines, and D. S. Fairchild of Ames. The members from the State University faculty were Professors Calvin, Macbride, Nutting and Hinrichs.

Doctor Fairchild presided as chairman of the section on medicine at the State Society meeting at Des Moines, May, 1888, and gave an address on the "Tendencies of Medical Practice".⁸ It is based on the newer conception of the causes of infectious diseases, febrile phenomena, the use of antipyretics, and logical application of other therapeutic agents. The trend of thought appears to be a plea or hope that internal medicine will be regarded as a special field of practice.

This is apparently the last comprehensive discussion by Doctor Fairchild of a purely medical subject, as all subsequent contributions are more or less of a surgical nature. It has been a pleasure to review these medical articles, because of the rare faculty of expression, good English, accuracy of historical reference and logical sequence of arrangement, that is rarely seen in medical writings.

During these years of greater attention to medical writing, teaching, and medical society work, Doctor Fairchild was gaining in professional standing in the community about Ames and throughout the state.

Among the early medical records of Story county we note the following operations performed by Doctor Fairchild in 1873 and 1874—axillary tumor, vesico-vaginal fistula (two), amputation of leg (two), large fatty tumor of back, and removal of right breast of cancer, all reported as recovered.

In 1874 the Des Moines and Minneapolis narrow gauge railroad was completed from Des Moines to Ames, and a few years later extended to Jewell Junction. The road was later acquired by the Chicago and Northwestern Railway Company. The building of this road opened up new territory north and south, for settlement as well as medical practice.

By 1874 Doctor Fairchild had acquired all the student and faculty practice, which was very attractive professionally and socially. The contact with the students and faculty members of the Agricultural College, the Veterinary School, and the College of Physicians and Surgeons, Drake University, Des Moines, helped to widen his professional acquaintance over the state and

4. Transactions, Iowa State Medical Society, p. 382, 1887.

5. Transactions, Iowa State Medical Society, p. 87, 1887.

6. Iowa State Medical Reporter, vol. i, No. 4, Oct., 1883.

7. Iowa State Medical Reporter, vol. i, No. 9.

8. Trans. Iowa State Medical Society, p. 124, 1888.

thus a desirable and profitable consultation practice had its beginning.

The evolution from general practice to that of consultant and special attention to surgery was natural to the period, but a number of events had an influence in bringing it about. The appointment in 1883 as local surgeon of the Chicago and Northwestern Railway Company at Ames was one of these. There was always a personal satisfaction in the annual pass, later the sleeping car and exchange passes, besides affording opportunity of frequent journeys to Chicago and other larger medical centers. The closer association with leading surgeons whom he admired was gratifying and had a distinct professional value. Of particular influence were the frequent visits to Chicago to the famous teaching clinics of Dr. Christian Fenger, unanimously accepted as the father of modern surgery in the West. Soon after Doctor Fenger's arrival in Chicago in 1878, he gave courses in pathological anatomy at Cook County Hospital which were unknown to the physicians of that day, and a few years later began his surgical clinics. He introduced antiseptic and aseptic surgical methods, and completely revolutionized surgery in Chicago.

Another factor was the increasing interest in a disease known as perityphlitis or "inflammation of the bowels", which was often fatal. In 1888 Doctor Fairchild had a patient, in whom he was very much interested, who developed a severe attack of perityphlitis. On the second day he

was greatly concerned because he was not doing well. Fortunately he came across the article of Doctor Reginald Fitz of Boston published in 1886, and realized that he was treating a case of appendicitis, not perityphlitis, and that an operation was indicated. This was carried out the next morning in a farm house five miles in the country. An incision directly over the inflamed organ liberated a quantity of exceedingly offensive pus, and removed a gangrenous and perforated appendix, which was quickly tied off and removed. This condition convinced the family and friends of the wisdom of the procedure, and the patient made a good recovery.

The paper of Doctor Fitz changed professional opinion of the disease before known as perityphlitis, and it now became a surgical disease.

At the Burlington meeting of the Iowa State Medical Society in May, 1893, Doctor Fairchild read a paper on Appendicitis, based on forty-seven cases of his own, and all operated upon at the home of the patient. In the discussion which followed he was severely criticised for his dangerous and radical views, but two years later at the Creston meeting a complete change was noticeable on the part of his critics.

The appointment in 1893 as division surgeon of the Chicago and Northwestern Railway Company required a change of location to Clinton, Iowa, and thus ended a period of twenty-one years of interesting, happy and productive work.

II.

AFTER the removal to Clinton in 1893 the interests of Doctor Fairchild were mainly concerned with the practice of surgery, and particularly in the field of railway surgery. A consultant in surgery was a unique innovation at this time.

Further appointments extended his sphere of activities. In 1893 he was appointed surgeon of the Chicago, Milwaukee and St. Paul Railway Company, in 1900 to a similar position with the Chicago Rock Island and Pacific, and in 1910 by the Chicago Burlington and Quincy Company.

A considerable portion of his time was devoted to court cases for these four important railroads, and he gained considerable recognition as an expert witness in personal injury cases, particularly cases in which obscure lesions of the central nervous system were alleged. The railways with which he was connected extended, aside from Iowa, over parts of four states, Minnesota, Wisconsin, Illinois and Missouri, so that his court

relations extended over rather a large territory. When the different workmen's compensation commissions were established, most of these claims were then investigated and adjusted by these commissions.

Official recognition by special societies attested to the standing he had attained in this special line of surgical work. In 1896 he was elected president of the Iowa State Association of Railway Surgeons. The presidency of the American Academy of Railway Surgeons came to him in 1901, and that of the American Association of Railway Surgeons in 1914.

Aside from these distinctions he received further recognition by being elected president of the Western Surgical Association in 1898, and when the American College of Surgeons was organized in Washington, D. C., May 5, 1913, he was one of the founders, and elected to Fellowship in the College.

Even with these manifold interests, he has been

able to contribute one or more papers on some phase of surgical science every year, and they present the same finish that characterized his earlier writings.

In spite of the many honors that have come to him in the field of surgery, his interest in the Iowa State Medical Society, and the welfare of the profession has never abated. Here too, the regard of his fellows has been extended to him in many ways.

At the meeting of the State Society in Des Moines, May, 1894, he presided as chairman of the Section on Surgery, his address being entitled "Some Studies in Brain Surgery",⁹ confined largely to the discussion of the surgical treatment of intracranial hemorrhage, particularly hemorrhage due to trauma. At this meeting he was elected first vice-president, Dr. A. L. Wright of Carroll being chosen for the presidency. Owing to the absence of Doctor Wright in Europe during the time of the next session at Creston, April, 1895, it developed on Doctor Fairchild as first vice-president to preside during the entire meeting. As he was elected president at this time, it became his unique privilege to preside at two annual sessions of the State Society. In the Iowa Medical Journal May, 1895, appears this editorial comment in connection with the Creston meeting: "Dr. D. S. Fairchild fills the presidential chair in an able manner. He is quiet, dignified, and his rulings are quickly and correctly made. He will be doubly honored by presiding at two successive annual meetings of the Society."

His address as retiring president in 1896 was an example of scholarly and literary excellence, and a fine expression of advanced medical thought thirty-two years ago. It may be of interest to quote a few sentences—"We look with great satisfaction on the efforts made in every direction to raise the standards of medical education, believing in this way that one of the greatest evils which has befallen the profession may, in time, be corrected.

"The adoption of scientific methods in medicine appears to be more in the light of an evolution than of simple advancement. The older practitioner of elastic mind lives over his professional life and derives the greatest pleasure from the contemplation of the marvelous changes in the methods employed. The scientific accuracy with which investigations are made, the microscope, the test tube, the fever thermometer, the sphymograph, electricity, the physiological and pathological laboratory—all of these are today the ac-

cessories of the physician and surgeon. He sees crowded into a lifetime the most remarkable discoveries.

"The surgeon of today is not more dexterous than the surgeon of a generation ago, but through a proper appreciation of the discoveries in biology and experimental pathology he is now able to eliminate in a great measure microorganisms, which so frequently undo the otherwise skillful work of the operator—the tendencies of surgical practice are thus based on a new philosophy, unknown to a past generation."

In this address he also expressed the belief that the duty of the State Society was to encourage a solidarity of organization, the integral parts of which should be, (1) the local or county society, (2) the State Society, and (3) the national association. This constituted the principle underlying the reorganization plan which was adopted by the American Medical Association at the St. Paul meeting in 1901, after which it was referred to the constituent state and county medical societies for adoption and revision of constitution and by-laws to conform with the new plan. Doctor Fairchild as chairman of the committee championed the plan before the Iowa State Society at the Des Moines meeting in 1902, and again at the Sioux City session in April, 1903, where it was finally adopted. During the course of the following year the plan was adopted by the different county societies of the state.

After the passing of more than twenty-five years, it is difficult to understand the antagonism and bitter criticism attending the discussion of this question during the two sessions that it came up for consideration. At the Sioux City session in 1903 where the plan of reorganization was adopted, a number of the prominent members of the Society resigned from the State Society on the floor of the house, and several years passed by before they returned to the fold.

Doctor Fairchild's devotion to the interests of the American Medical Association is best shown by his faithful attendance at annual sessions since his admission to membership in 1874. It is recorded up to 1901 that he was elected a delegate from the Iowa State Society eighteen times. Under the new plan of delegate representation, proportionate to the state membership, he has been elected five times. During his fifty-four years of membership in the American Medical Association, he has served on several important committees. He was a member of the Committee on National Incorporation of the Association, Dr. Joseph D. Bryant, New York, being chairman. He served on reference committees on numerous

9. Trans. Iowa State Medical Society, p. 81, vol. xii, 1894.

occasions, and as the chairman of the committee on re-writing the by-laws on membership, fixing the relation of Members and Fellows which was adopted as read. The distinguished honor of first vice-president of the American Medical Association was accorded him in 1914.

He attended the Pan-American Medical Congress in Havana in February, 1900, as a delegate from the Iowa State Medical Society, Dr. Henry B. Young of Burlington, also being a delegate.

An interesting account of this meeting is given in the History of Medicine in Iowa, Volume I. It was at this time that Major Walter Reed presented his epoch making work in the study of yellow fever. In the accompanying group photograph we recognize besides Dr. Fairchild and Dr. Young, Drs. N. S. Davis, George H. Simmons, and E. Wyllis Andrews of Chicago, Major Reed and Captain W. C. Gorgas, later surgeon general.

In 1903 a reorganization of the medical school at Drake University occurred, and at the urgent request of the medical faculty and President Bell of the University, Doctor Fairchild accepted the deanship of the medical faculty and the professorship of surgery and clinical surgery. He had previously held the chair of surgery and surgical pathology since 1892. In order to better fulfill the duties of dean, he changed his residence from Clinton to Des Moines. The medical school prospered under his leadership, but the desire to return to his railroad and surgical practice in Clinton prompted him to resign from the deanship and the chair of surgery in 1909. This brought to a close a teaching service of thirty years, beginning at the State Veterinary School, Ames, in 1879, and the Medical School in Des Moines at

its organization in 1882. It was a period in Doctor Fairchild's life when many lasting friendships were made, and no doubt contributed in a large measure to his professional success.

In later years he contributed several interesting articles on the development of medical education in Iowa. His familiarity with the remarkable changes that had occurred during his lifetime, added greatly to their value and interest.

After again taking up his professional work in Clinton, it would seem that he had earned a respite from other duties, but he was soon called upon by the State Medical Society to render it one of the greatest services of his career. This was in connection with the committee on medical legal defense, on which he served so efficiently for many years. A committee was appointed at the State Society meeting in 1905 to investigate the matter of physicians' defense in malpractice suits to be assumed by the State Society. The membership of the committee consisted of Doctors L. W. Littig, J. M. Emmert and D. S. Fairchild, with Doctor Fairchild as chairman. A preliminary report was presented at the State Society meeting in 1906, but no definite action was taken. A definite plan was recommended by the committee and adopted at the annual meeting in 1907, and the committee on Physicians' Defense was established. A year later the name was changed to Committee on Medico-Legal Defense. Doctor Fairchild served as chairman of this committee until the State Society meeting in 1927, a period of more than twenty years. By reason of his unusual knowledge and experience he rendered an inestimable service to the Iowa profession, and it will always be regarded as one of his outstanding accomplishments.

III.

MEDICAL journalism in Iowa had its beginning with the publication of the first number of the Western Medico-Chirurgical Journal, published in Keokuk, September 1, 1850. This was the first medical journal ever issued west of the Mississippi and north of the Missouri. The only copy known to be in existence of this first number, Volume I, is a treasured possession of Dr. Frank M. Fuller of Keokuk, and contains that interesting contribution by John F. Dillon, M.D., of Farmington, Iowa, later famous judge and professor of constitutional law in Columbia University, New York, entitled "A Case of Rheumatic Carditis, Autopsical Examination".

This journal was issued quite regularly until 1853, when the name was changed to Iowa Medical Journal, and continued under that name with occasional suspensions until 1869.

After a lapse of fourteen years, medical journalism in Iowa had a new beginning with the publication of the first number of the Iowa State Medical Reporter (a monthly journal of medicine and surgery) at Des Moines, Iowa, July, 1883. Until this time the only medium for publishing medical papers was the annual transactions of the proceedings of the State Society meetings, and these included only such papers as were presented at the annual sessions of the Society. Fortunately a complete set of these trans-

actions since 1867 is in the State Medical Library. This is largely due to the generous donation from the private libraries of Dr. E. E. Dorr and the late Dr. Gershom H. Hill. The editor of the Iowa State Reporter was Dr. F. E. Cruttenden of Des Moines, Dr. D. S. Fairchild of Ames being a member of the associate editorial staff. Four volumes were published, the last number being issued February, 1888. An editorial statement indicates that illness of the editor was the cause for its discontinuance. It was an interesting publication and reflected great credit on its editor.

Aside from the papers read at State Society meetings, much other interesting matter was published. A number of the original articles of Doctor Fairchild referred to in this biography appeared in the Reporter. Interesting travel notes from Iowa physicians such as Drs. W. F. Peck, Wm. L. Allen, and L. W. Littig, reports of college clinics from Keokuk, Iowa City and Des Moines, and county society proceedings, added very attractive features. It is to be regretted that it could not be continued for a longer period.

After a lapse of three years the first number of *Vis Medicatrix* appeared June, 1891, with Dr. Woods Hutchinson of Des Moines as editor. It was published bi-monthly and continued only one year through six numbers, the last issue being that of April, 1892. Under such brilliant editorship it should have had a promising future. It is assumed that the appointment of Doctor Hutchinson as professor of anatomy at the State University in 1891 and his change of residence to Iowa City, was the explanation for the short life of this publication.

The first number of the Iowa Medical Journal (a monthly journal devoted to the interests of the Iowa profession) was issued April, 1895, with Dr. J. W. Kime of Ft. Dodge as editor. It continued under his editorship until July, 1900, when it changed hands, and Dr. E. E. Dorr of Des Moines became editor. It was published without interruption through twenty volumes, the last number being issued June 15, 1914. During the five years 1906-1911, the proceedings of the annual meetings of the State Society were published in this journal. At the meeting of the State Society May 19, 1911, the House of Delegates ordered that a monthly journal be established and published by the Society, and elected Dr. D. S. Fairchild of Clinton as editor.

The first number of Volume I (new series) appeared July 15, 1911, and contains this editorial greeting: "The editor of this Journal desires to express his appreciation of the honor conferred in electing him unanimously to this responsible position. It is with some misgivings that we enter

upon the duties of editor-in-chief, but the patient acceptance of efforts in the past however, is a source of encouragement, and we sincerely hope that every member of the Society will feel an interest in aiding us in every way possible. The moral support of the profession is an element of great value in accomplishing what we have set out to do".

The eighteen volumes that have followed form the best estimate of the efficiency of editorial management. Among the state medical journals of this country, it ranks among the best, and there is abundant reason why medical journalism in Iowa has prospered to its present fair estate.

To cultivate the historical sense seems a natural trait with Doctor Fairchild, and by action of the State Society, as early as 1875, he was destined to become the medical historian of Iowa.

The committee of five members of which Doctor Fairchild was chairman made its report at the meeting in 1876, and were able to present a fairly complete history of medicine in twenty-three counties, from the earliest settlement to 1876. With succeeding years he has diligently pursued his historical researches, and thus preserved a valuable fund of information from oblivion. In assuming the duties as editor of the journal, the opportunity was offered of greatly furthering this research, as well as having a convenient medium for publication.

The collection of historical data has included every phase of medicine from the time when the first white man came to Iowa to the present. It seems all but providential that in the span of one lifetime a contact has been permitted with three generations of Iowa physicians.

The historic research has extended far beyond the usual collection of biographic data, and includes the history of medicine in the period 1820-1840, to 1850-1860, and to 1876, an interesting description of pioneer practice in Iowa, characteristics of early physicians, the development of medical education at Keokuk, Iowa City and Des Moines, the history of medical legislation, establishment of the State Board of Health, Insane Hospitals, State Medical Society, County Societies, the workmen's compensation law, and many other historic movements.

Numerous photographs of early physicians have been collected, and many appropriate illustrations add greatly to the completeness of the research.

Doctor Fairchild is preparing a History of Medicine in Iowa, which will include all of his previous publications, in several volumes, the first having been issued during the past year. It has been a monumental task, and no words can

express the obligation that is due Doctor Fairchild for these self sacrificing labors.

The noblest purpose of history is to vitalize the past, and in the words of Woodrow Wilson, historians should be as those who "see a distant country and a far away people before their very eyes, as real, as full of hope and incident, as the day in which they themselves lived".

An appreciative Iowa profession bears testimony that Doctor Fairchild has nobly fulfilled this mission.

We leave him thus on that serene height, where, in the words of Whittier, the outlook is good, and there is no more hill climbing.

Privileged to travel life's pathway with many of the best men and women of his generation, he can now survey the past with no regret nor bitterness, the hurts and disappointments all softened by time.

Blessed by a devoted wife, who has cheered him in fair weather and foul, a wise counsel and staff all along the way. A worthy son, follower of his profession, and a grandson, David III, to carry on the name.

Life for him will take on a new tranquility, and each year will bring a fresh fruition, a better understanding, a broader sympathy and a deeper appreciation of truth and beauty.



THE PHYSICIAN

There are men and classes of men that stand above the common herd; the soldier, the sailor, and the shepherd not infrequently; the artist rarely; rarer still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marveled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practice an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Herculean cheerfulness and courage. So it is that he brings air and cheer into the sickroom, and often enough, though not so often as he wishes, brings healing.

From the Dedication of the "Underwoods"

—Robert Louis Stevenson.

The Journal of the Iowa State Medical Society

RALPH R. SIMMONS, Editor-----Des Moines
DAVID S. FAIRCHILD, SR., Editor-Emeritus-----Clinton

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SUBSCRIPTION \$3.00 PER YEAR

Address all communications to the Editor of the
Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVIII September, 1928 No. 9

DR. DAVID S. FAIRCHILD

An Appreciation

Dr. David S. Fairchild came to Minnesota in 1869, and began the practice of medicine in the little country town of High Forest, about sixteen miles from Rochester. He was a friend of my father, and in my boyhood and my student days, there was no man in the medical profession with whom I came into closer or more inspiring contact.

I remember well the regret that our family experienced in common with the people of the wide territory that was included in his practice, when Dr. Fairchild left High Forest to go to Iowa. His leaving Minnesota did not end our close acquaintanceship with him, however, and in all the intervening years I think there has been no year that Dr. and Mrs. Fairchild have not visited Rochester. These annual visits are today, as they have been in the past, important events to us.

Dr. Fairchild is not only a learned surgeon, with fine surgical judgment, but also a man of wide general information and sound learning, a cultured gentleman. For many years he has been chief surgeon of the Chicago and Northwestern Railroad for the state of Iowa. His counsel is sought by both the officers of the road and the employes, because he is just. In this quality he exemplifies the spirit of the road he serves, for the Northwestern always has appreciated its responsibility to its employes as well as to the public.

I remember the occasions when I visited Dr. Fairchild's clinic in Clinton and watched him perform surgical operations. He always exhibited soundness of judgment and keen appreciation of those procedures which would give the patient the best results. He never was led to depart from the simpler methods for those more brilliant, but more hazardous.

Dr. Fairchild perhaps will forgive me if I tell an anecdote of an occasion many years ago on which the late Dr. A. J. Ochsner and I visited him at his clinic. We had watched him perform a number of operations: a resection of the knee, the removal of an abdominal tumor, and several others which I do not now recall. Dr. Ochsner was faithful to the use of horse-hair as a skin suture; Dr. Fairchild was using fine Japanese silk to close the skin, and Dr. Ochsner asked why he did not use horse-hair. To this Dr. Fairchild replied that he had been unable to get good horse-hair. It happened that Dr. Fairchild always drove beautiful horses, and at that moment his span of bays, hitched to his carriage, were tied out in front of the hospital. Dr. Ochsner said, "I know where I can get you some". With that he took a pair of scissors and disappeared, to return presently with a generous bunch of horse-hair. The source of this gift was the tail of one of Dr. Fairchild's horses; that the loss would be readily visible was only too obvious. Dr. Fairchild said "Thanks" but his thanks were tempered by regret.

New England has furnished the ferment that has done the most to Americanize the diverse peoples that have settled the United States, and Dr. Fairchild has been a notable example in citizenship. I like to think of that early day when this man, educated in eastern universities, with a splendid command of the French language and literature and a good working knowledge of German, left the rocky hills of Vermont to come into the West. He came not only with the spirit of the pioneer but also with an uncompromising adherence to the spirit of truth, and with it all a tolerant and generous attitude toward the people with whom he came in contact.

Dr. Fairchild has held the highest office within the gift of his State Medical Society, and has been first vice-president of the American Medical Association. His counsel has been sought in all those affairs which have marked the gradual advance of the medical profession. Loyal to his principles, loyal to the medical profession, loyal to his friends, show me a man who has lived with higher ideals than Dr. Fairchild or given of himself more freely to his beloved profession.

WILLIAM J. MAYO.

AN OPEN LETTER

After a service of seventeen years as Editor of the Journal of the Iowa State Medical Society and six preceding years as committeeman to prepare the way, I am now reminded by the increasing years that it is time to place the active work in the hands of a younger man.

The first years of the Journal were full of difficulties. We were advised by the Post Office Department that it would be unlawful to accept paid advertisements if the Journal was distributed to the members of the Society as a part of the dues paid. This did not apply to journals that carried advertisements prior to the promulgation of this rule, which went into effect just before we adopted the plan of journalizing our proceedings. A little later we were permitted to present a bill carrying three items: General Expenses, Medical Defense, Journal Subscriptions. The member in paying his dues could mark the item to which his subscription could be applied; under such conditions we could solicit advertising. As we were new in the field and our dues were only \$2.00, our income was uncertain. Fortunately for us, a new third assistant postmaster general was appointed and conditions improved.

As I look back on the seventeen years' work on the Journal I feel a deep satisfaction in the friendly spirit manifested by the profession of the state. There was much no doubt to criticise but the criticisms were presented in a friendly way. Doctors are natural critics, especially of members of their own profession. If no criticisms had appeared I should feel that no one read the Journal.

In closing my stewardship, I take pleasure in introducing my assistant, who served me efficiently for three years, Dr. R. R. Simmons of Des Moines.

DAVID S. FAIRCHILD.

IDEALS—AN APPRECIATION OF DR. DAVID S. FAIRCHILD

Ideals are goals. They are developed as the ultimate of one's ambitions. It is indeed fortunate that they are not inflexible nor fixed entities, unyielding to varying conditions of mental evolution, but rather that they should be elastic, and changeable with one's development. The universal march of progress is everywhere a tribute to man's tireless effort to mature his ideals. As ideals enter into the very heart of an individual, determining his goal, so, also, ideals become the guidon of organized group endeavor. It is not at all surprising then that our State Society, spurred

to a realization of a need for a permanent record and a mouthpiece for the promulgation of official ideals, should have appointed a committee twenty-three years ago to study this problem. The problem was not an easy one, since journalism as a product of organized medicine was in its swaddling clothes in this country. This committee arrived at no conclusion for six years, but then, by reason of their thoroughness, furnished a report which enabled the Society to establish our official organ and begin its publication. It seems both logical and fitting that the Society should select as its first editor the chairman of this committee, Dr. David S. Fairchild, since no doubt the committee's report was largely a reflection of his own thoughtful consideration and research. That they were happy in their choice is demonstrated by his long and useful service, fruitful in placing our State Journal easily within the outstanding group of medical journals sponsored by state societies. His ideals have been advanced and embellished to keep abreast the times. His magnanimity in the sacrifice of personal gain and aggrandizement in awarding his editorship proper time for meticulous care of journalistic detail, together with his unfailing adherence to his ideals of principle, have realized their reward in a mass of friendships within our organization which I believe stand as a unique achievement within this generation.

In accepting the editorship of the Journal, I do so with profound respect and loyalty to the ideals now established, and with a keen realization that all credit should be given to the pioneering labor of the retiring editor, Dr. David S. Fairchild. Much of enviable prestige and admirable cooperation are mine by virtue of an illustrious predecessor. However, I am also aware of an obligation to a high standard of editorship long established, which is rather appalling. Nevertheless, I pledge my effort to you, the members of our Society, so long as I may feel the sustaining support of your loyalty and cooperation in making our Journal truly of, by, and for our Society, and in striving towards the highest ideals of scientific medical advancement.

R. R. SIMMONS.

S. U. I. HOSPITAL OPENING IN NOVEMBER

An event of interest to Iowa physicians is the formal opening of the General Hospital of the University of Iowa November 15, 16 and 17. Further announcement will be made but the present plans for the three day celebration include clinics, addresses and numerous social events, in addition to the formal dedication program.

MISSISSIPPI VALLEY SANATORIUM ASSOCIATION

Morning Session—Hotel Fort Des Moines

9:30—Business Meeting.

10:00—Dr. F. L. Jennings—"Intestinal Tuberculosis".

11:00—Dr. G. I. Bellis, Milwaukee, Wisconsin—"Problems of Medical Administration of Tuberculosis Sanatoria". Discussion by Dr. Clarence L. Wheaton, of Chicago, Illinois.

12:30—Noon—Luncheon at the Broadlawns Sanatorium.

Afternoon Session—Broadlawns Sanatorium

2:00—Dr. Philip H. Kreuscher, Chicago, Illinois—"Bone Tuberculosis".

3:00—Dr. Porter P. Vinson, Mayo Clinic, Rochester, Minnesota—"The Bronchoscopic Diagnosis and Treatment of Pulmonary Diseases".

4:00—Dr. J. D. Davis, Mayo Clinic, Rochester, Minnesota—"Pathological Changes of the Lymph Nodes in Tuberculosis".

MEDICAL SESSION—MISSISSIPPI VALLEY CONFERENCE

Tuesday Afternoon, September 18, 1928

Extra Pulmonary Tuberculosis—Dr. Henry Boswell, Mississippi State Sanatorium, Mississippi.

Compression Therapy—A Comparative Study—Dr. LeRoy Peters, Albuquerque, New Mexico.

Post-Mortem Studies in Healing Tuberculosis Cavities—Dr. Henry C. Sweany, Chicago, Illinois.

Address—Dr. Taylor, Oakdale Sanitorium, Iowa City, Iowa.

Tuberculosis and Pregnancy—Dr. Ernest S. Mariette, Glen Lake Sanitorium, Minneapolis, Minnesota.

Address—Dr. Ray Matson, Portland, Oregon.

An Invitation to the Medical Session

May we call again to the attention of Iowa physicians the Mississippi Valley Conference on Tuberculosis and Public Health which meets with headquarters at the Fort Des Moines Hotel, September 17 to 19, and the Mississippi Valley Sanatorium Association which meets September 17, in the morning at the hotel and in the afternoon at Broadlawns.

Naturally all physicians in the state are invited to attend all the sessions of both conventions. It will probably be ten years before the Mississippi Valley Conference again comes to Iowa. We consider this an exceptionally fine opportunity to hear a number of nationally known speakers.

Among these are: Dr. Linsley Williams, managing director of the National Tuberculosis Association; Dr. Kendall Emerson, Boston; Dr. J. A. Myers, Minneapolis; Dr. P. P. Vinson, Mayo Clinic, Rochester; Dr. James Stygall, nutrition expert, Indianapolis; Dr. Albert Henry, University of Indiana; A. M. Wehenkel, department of health, Detroit; Dr.

Royal Dunham, Ottawa, president of the Mississippi Valley Sanatorium Association; Dr. C. L. Bellis, Mairdale Sanatorium, Wisconsin; Dr. E. S. Mariette, Minneapolis; Dr. Selig Simon, St. Louis; Dr. G. I. Bellis, Milwaukee; Dr. Phillip H. Kreuscher, Chicago; Dr. Charles J. Hatfield, Phipps Institute, Philadelphia; Dr. William H. Welch, Johns Hopkins; Dr. Leroy S. Peter, Albuquerque, and Dr. Henry Boswell, Sanatorium, Mississippi.

The medical session at the Fort Des Moines Hotel on the afternoon of September 18 will be one of special interest. At the sociological session Tuesday morning general public health programs will be discussed. The sanatorium session will be rather technical.

Exceptionally enticing social features have been planned, including a dinner Monday evening, a picnic, outings at the clubs on other days and dancing and bridge each evening.

All the railroads have granted a round trip rate of one and one-half fare on the certificate plan September 13 to 19 returning at latest September 22.

The executive committee of the National Tuberculosis Association will meet in Des Moines, Monday, September 17. This will bring to the city several internationally famous physicians.

The Valley territory includes Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Nebraska, Kansas, Missouri, South Dakota, and North Dakota.

John H. Peck, M.D., Chairman,
Local Com. on Arrangements.

MEDICAL SOCIETY OF THE MISSOURI VALLEY

The Medical Society of the Missouri Valley meets in Omaha October 30th and 31st and November 1st. Dr. Fred Smith, professor of medicine of the University of Iowa is the president.

A re-organization of this medical society was accomplished at the Des Moines meeting last year. The objective of this association as stated in the new constitution is as follows: "The object of this association shall be primarily educational. It shall give opportunity to the faculties of the universities of the district, to members of the association and to invited guests to present such work as will tend to place the practice of medicine in the district on a higher scientific plane."

A program will be provided this year which is in keeping with the above stated purpose of the society. It will consist of papers, addresses and clinics. Among the invited guests who have accepted places on the program are Dr. B. J. Clawson, assistant professor of pathology, University of Minnesota; Dr. J. B. Herrick, professor of medicine, Rush Medical College; Dr. M. L. Harris, president of the American Medical Association; Dr. A. C. Ivy, professor of physiology, Northwestern University Medical School; Dr. Carl R. Moore, professor of biology,

University of Chicago; Dr. F. C. Mann, the Mayo Foundation, and Dr. Leonard G. Rowntree, the Mayo Clinic. There will be other invited guests of note. The subject matter to be presented by members of the association promises to be unusually rich.

The meetings of the society are open to the practitioners of the district. A registration fee of two dollars will be charged, which fee includes the annual dues.

It has been the opinion of some of those interested that a society with the above objectives could be made an educational force of great value. The enlisting of the universities of the district should be of great benefit to all of us, and should insure good programs and enlightened management. It should give the practitioners an opportunity to meet and know the men who influence to a great degree medical education and medical progress in the region. This contact should be advantageous to both practitioner and teacher.

The medical profession decides by its presence or absence whether the society shall continue.

AMERICAN PUBLIC HEALTH ASSOCIATION

Eleven sections will comprise the fifty-seventh annual convention of the American Public Health Association, which will be held jointly with the meetings of the American Child Health Association and the American Social Hygiene Association. October 15 to 19, inclusive, at the Stevens Hotel, Chicago. Sections will be divided into the following main groups: Epidemiology, Public Health Education, Cancer, Vital Statistics, Industrial Hygiene, Public Health Engineering, Child Hygiene, Laboratory, Health Officers, Food Drugs and Nutrition, and Public Health Nursing.

The discussions in each section will be led by an authority in that field. Dr. Edward S. Godfrey, Jr., director of the Bureau of Communicable Diseases of the State of New York, will direct the section on Epidemiology—one of the most important divisions of the meeting. Dr. Godfrey will be assisted by Dr. Alton Pope, of Chicago, who will present a paper on "Fatality in Meningitis".

Convention discussions will be followed by laboratory trips, or inspection tours. Eighteen scheduled trips have been planned, and sixty-three optional ones are on the program, so that these tours will offer a wide range of interest and be of value to workers in every phase of health.

The convention will open Monday evening, October 15th, with a general session at which Dr. Herman N. Bundesen, president of the American Public Health Association, will deliver the opening address. A second general session will be held on Wednesday when Dr. Frank G. Boudreau will be present from the Health Section of the League of Nations at Geneva, Switzerland, to speak on "International Health".

ILLINOIS MEETING OF INTEREST TO IOWANS

The Adams County Medical Society is arranging for one of the most important and outstanding medical meetings of the year to be held at Quincy, Illinois on October 15.

Seven leading professors from Northwestern University Medical School of Chicago are coming to Quincy to put on a program of exceptional interest to the general practitioner. There will be papers on obstetrics, fractures, heart disease, and infections of the hand.

The professors who will appear on the program are Doctor Joseph B. DeLee, professor of obstetrics; Doctor Irving Samuel Cutter, dean and associate professor of medicine; Doctor Allen Buckner Kanel, professor of surgery; Doctor James Gray Carr, associate professor of medicine; Doctor William Roberts Cubbins, associate professor of surgery; Doctor Harry Edgar Mock, assistant professor of surgery, and Doctor Paul Budd Magnuson, assistant professor of surgery.

The meeting will begin promptly at nine o'clock, Monday morning, October 15 and will continue throughout the day. A special luncheon will be served at noon and a banquet will be given in the evening.

CLINICAL CONGRESS OF AMERICAN COLLEGE OF SURGEONS IN OCTOBER

The American College of Surgeons will hold the eighteenth Clinical Congress in Boston, October 8-12. Headquarters will be at the Statler Hotel and meetings will be held in the ballroom of the Copley-Plaza Hotel and Symphony Hall. The Hospital Standardization Conference will be held in morning and afternoon sessions in the ballroom of the Copley-Plaza Hotel Monday, Tuesday, Wednesday and Thursday. An innovation this year will be the commencement of the clinics in the Boston hospitals on Monday afternoon, continuing through the mornings and afternoons of the following four days. Monday evening's program will include an address of welcome by the local chairman, the address of the retiring president, Dr. George David Stewart, New York, the inaugural address of the new president, Dr. Franklin H. Martin, Chicago, and the John B. Murphy oration on surgery by Professor Vittorio Putti of Bologna, Italy. Tuesday, Wednesday and Thursday evenings' sessions will be held in the ballroom of the Copley-Plaza Hotel. At the Wednesday evening meeting the visiting surgeons will be the guests of the Boston Surgical Society at a special meeting when the Bigelow medal is to be awarded. On Friday evening the annual convocation of the College will be held in Symphony hall when the 1928 class of candidates for Fellowship in the College will be received. The fellowship address on this

evening will be delivered by Dr. William J. Mayo.

The annual meeting of the Governors and Fellows will be held Friday afternoon and will be followed by a symposium on Traumatic Surgery to be participated in by leaders in industry, labor, indemnity organizations and the medical profession. Ether day will be celebrated in the Dome room of the Massachusetts General Hospital on Friday when a bronze bust of William T. A. Morton will be presented to the hospital. It was in this building that ether was first administered for the production of surgical anaesthesia on October 16, 1846. Several newly completed medical motion pictures produced under the supervision of the American College of Surgeons and approved by it will be shown during the Congress. Reduced fares on the railways of the United States and Canada have been authorized to those holding a convention certificate so that the total fare for the round trip will be one and one-half the ordinary first class one-way fare. Other outstanding features will be the exhibits. In addition to the commercial exhibits the departments of the College will present scientific exhibits. A number of distinguished foreign guests of international reputation have signified their intention of attending. The chairman of the Boston Committee on Arrangements is Dr. Frederic J. Cotton.

THE GRADUATE FORTNIGHT

The first "Graduate Fortnight" of the New York Academy of Medicine, on the problem of aging and of old age, is scheduled for October 1 to 14, with two sessions daily at the Academy, and clinical demonstrations and lectures at thirty teaching hospitals.

Among the speakers to be present from abroad are Sir Farquhar Buzzard, Regius Professor of Physic at Oxford, and Dr. Vittorio Putti, orthopedic physician of Bologna.

Two sessions daily will be held at the Academy, comprising the following program:

Sessions at the Academy

October 1st. Afternoon. Opening Session. Introductory Remarks—Dr. Samuel W. Lambert, president, N. Y. Academy of Medicine; Dr. Lewis I. Dublin, statistician, Metropolitan Life Insurance Co. The Treatment of Arthritis Deformans of the Hip—Prof. Vittorio Putti, Institute Rizzoli, Bologna, Italy.

Evening. The Doctor—Trainer or Healer?—Dr. George E. Vincent, president, Rockefeller Foundation. Carpenter Lecture—Pathological Processes in Aging—Dr. Alfred S. Warthin, professor of pathology, University of Michigan.

October 2. Afternoon. Importance of Anatomical Pathways in Diseases of Middle Life and Old Age—Dr. Harrison S. Martland, City Hospital, Newark. Postponement in the Individual Process of Aging—Dr. Linsley R. Williams, president, N. Y. Tuberculosis and Health Association. Clinical Aspect and

Management of Old Age from the Practitioner's Point of View—Dr. Charles F. Collins, New York City.

Evening. Syphilis in Elderly Persons—Dr. Geo. M. MacKee, professor of dermatology and syphilology; Post Graduate. Diseases of the Skin in Old Age—Dr. Howard Fox, professor of dermatology, N. Y. University.

October 3. Afternoon. Arterial Diseases of the Brain and Cord—Dr. Foster Kennedy, professor of clinical neurology, Cornell. Spinal Cord Diseases—Dr. Edwin G. Zabriskie, attending physician, Neurological Institute.

Evening. The Aging of the Heart Muscle Regarded from a General Biological Point of View—Dr. Alfred E. Cohn, Rockefeller Institute; Dr. Alexis Carrel, Rockefeller Institute. Arteriosclerosis and Aneurism—Dr. E. J. G. Beardsley, associate professor of medicine, Jefferson Medical College, Philadelphia.

October 4. Afternoon. Dietetics in Old Age—Dr. Samuel A. Brown, professor of Pharmacology, New York University. Pharmacology in Old Age—Dr. Alexander Lambert, visiting physician, Bellevue. Alcohol in Old Age—Dr. Samuel W. Lambert, president, New York Academy of Medicine.

Evening—The Relation of Disorders of Ductless Glands to Senescence—Dr. William Engelbach, Engelbach Clinic, St. Louis, Missouri. Menopausal and Post-Menopausal Conditions in Women—Dr. Benjamin P. Watson, professor of obstetrics and gynecology, Columbia University; Sir Farquhar Buzzard, Regius professor of medicine, Oxford.

October 5. Afternoon. Gastro-enterological Problems—Dr. Arthur F. Chace, professor of medicine, Post Graduate. Food and Food Habits—Dr. Solomon Strouse, associate professor of medicine, Northwestern University.

Evening—Traumatic Surgery and the Problems of Age—Dr. John J. Moorhead, professor of traumatic surgery, Post Graduate. Osteomalacia and Paget's Disease—Dr. Edwin Allen Locke, clinical professor of medicine, Harvard. The Conditions of the Rectum in Old Age—Dr. Jerome M. Lynch, professor of proctology, Polyclinic.

October 8. Afternoon. Pneumonia in Old Age—Dr. William R. Williams, attending physician, New York Hospital. Bronchitis and Asthma—Dr. Frederick T. Lord, Boston.

Evening. Tuberculosis—Dr. Lawrason Brown, Saranac Lake. Climate and the Aged—Dr. Gerald B. Webb, Colorado Springs. Psychoses in Old Age—Dr. Menas S. Gregory, director psychopathology, Bellevue Hospital.

October 9. Afternoon. X-ray and Radium in the Problem of Old Age—Dr. Francis Carter Wood, director radiological therapeutics, St. Luke's Hospital. Special Aspects of Neoplasms in the Aged—Dr. James Ewing, professor of pathology, Cornell. Diseases of the Arteries of the Extremities—Dr. Leo Buerger, attending surgeon, Bronx Hospital.

Evening. Aging of the Human Brain—Dr. Frederick Tilney, professor of neurology, Columbia. Apoplexy—Dr. Bernard Sachs, consulting neurologist, Mt. Sinai Hospital.

October 10. Afternoon. Hypertension—Dr. Herman O. Mosenthal, director department medicine, Post Graduate. Nephritis in Old Age—Dr. Nellis B. Foster, associate professor of medicine, Cornell.

Evening. Harvey Lecture—Senescence and Rejuvenescence from a Biological Standpoint, professor C. M. Child, University of Chicago. Present Status of the Problem of the So-called Rejuvenation—Dr. Charles R. Stockard, professor of anatomy, Cornell.

October 11. Afternoon. The Myocardium—Dr. John Wyckoff, clinical professor of medicine, New York University. Angina Pectoris—Dr. Harlow Brooks, professor of clinical medicine, New York University.

Evening. Infectious Diseases and Old Age. Arthritis and Old Age—Dr. Russell L. Cecil, visiting physician, Bellevue.

October 12. Afternoon. Liver and Biliary Passages—Dr. Franklin W. White, instructor in medicine, Harvard. Digestive Problems—Dr. Thomas R. Brown, associate professor of clinical medicine, Johns Hopkins.

Evening. Carcinoma of the Larynx—Dr. John E. MacKenty, senior surgeon, Man. E. E. and Throat Hospital. Diseases of the Eye in Old Age—Dr. William H. Wilmer, professor of ophthalmology, Johns Hopkins.

Programs of special clinics and clinical demonstrations have been arranged in the following hospitals which are cooperating in the Fortnight: Downtown group—Bellevue Hospital, Beth Israel Hospital, French Hospital, New York Hospital, New York Eye and Ear Infirmary, New York Infirmary for Women and Children, Post Graduate Hospital, Ruptured and Crippled Hospital, St. Vincent's Hospital, and the University and Bellevue Clinic. Midtown group—Cancer Institute, Central Neurological Hospital, City Hospital and the Knapp Memorial Hospital. Uptown group—Beth David Hospital, Fifth Avenue Hospital, Harlem Hospital, Jewish Memorial Hospital, Joint Disease Hospital, Lebanon Hospital, Memorial Hospital, Montefiore Hospital, Mount Sinai Hospital, Presbyterian Hospital, Reconstruction Hospital, St. Luke's Hospital, Vanderbilt Hospital, and Women's Hospital.

PHYSICIAN MAYOR ACTS TO PREVENT RABIES EPIDEMIC

When it comes to controlling an epidemic, Marshalltown is fortunate in having a physician for mayor. Upon a report from the laboratory at Iowa City, that a dog which had bitten two children, and in addition a number of dogs, was infected with rabies, Dr. A. C. Conaway, mayor of the city, immediately established a thirty day quarantine, and has required the vaccination of all dogs before they are released.

HEALTH CONFERENCES AND CHEST CLINICS TO BE HELD

September 17-19, Mississippi Valley Conference on Tuberculosis at Des Moines.

September 17, Mississippi Valley Sanatorium Association at Des Moines.

September 28, chest clinic, Muscatine County Society at Muscatine.

October 5, chest clinic, Bremer County Society at Sumner.

October 12, chest clinic, Davis County at Bloomfield.

October 19, chest clinic, Adams County at Corning.

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examinations:

Senior Medical Officer
Medical Officer
Associate Medical Officer
Assistant Medical Officer

Applications for the above listed positions must be on file with the civil service commission at Washington, D. C., not later than December 29.

The examinations are to fill vacancies in hospitals of the Veterans' Bureau, the Public Health Service, and the Indian Service, and in other establishments of the federal classified service throughout the United States.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience.

On account of the needs of the service papers will be rated as received and certification made as the needs of the service require.

While there are opportunities in the government hospitals for those trained in practically any of the numerous specialties of medicine and surgery, there is especial need for specialists in tuberculosis or neuropsychiatry.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the secretary of the United States Civil Service Board of Examiners at the post-office or customhouse in any city.

FRACTURE COURSE FOR GRADUATES

Announcement has been made by the Massachusetts General Hospital of an intensive six day fracture course for graduates under the direction of the

Harvard Medical School, from October 1 to 6, 1928 (inclusive). This is the week preceding the Congress of College of Surgeons. The course will extend through a period of eight hours each day, divided into morning, afternoon and evening sessions. The instruction will be based on acute and convalescent fracture cases and on the study of known end results in over 600 old cases. It will include operative and non-operative treatment, demonstrations of splinting, suspension, and skeletal traction. The attendance is limited, and the fee \$50. For information apply to Secretary—Fracture Course, Massachusetts General Hospital, Boston, Massachusetts.

SOCIETY PROCEEDINGS

Clinics Held

The Chest Clinic held at Forest City under the auspices of the Hancock-Winnebago Medical Society attracted a large attendance of physicians, the following being present: Drs. Michael J. Kenefick, Algona; E. A. Couper and C. T. Graettidge of Britt; G. F. Dolmage and H. E. Eiel of Buffalo Center; H. R. Irish, T. H. Irish, A. J. Peterson and P. H. Vestervorg of Forest City; G. A. Bemis and T. McMahan of Garner; G. E. Snearley, Goodell; E. C. Hartman, W. F. Missman and George Zinn of Klemme, and A. L. Judd, Kanawha.

Dr. Winkler, secretary and the members of the Osceola County Society sponsored a very successful chest clinic in Sibley, August 3, 1928. Four guests from neighboring counties were present. There was a wealth of clinical material and unusual interest was shown.

The Worth County Medical Society Chest Clinic on August 10 brought a good response from the physicians of the county, every member of the society, except one, being present for the day's session at Northwood.

Clinton County Medical Society

The annual golf tournament and scientific meeting of the Clinton County Medical Society was held at the Clinton Country Club, August 14, 1928. Physicians from Dixon, Sterling, Morrison, Rock Island, Moline, Illinois, and Maquoketa, Charlotte, Preston, Low Moor, Dewitt, Davenport, and other smaller towns in the surrounding country were present.

Golf was enjoyed in the afternoon. A fried chicken dinner, with plates for sixty was followed by a scientific program.

The program was presented by Dr. A. B. Rivers, Mayo Clinic, who gave a talk, illustrated by lantern slides, on Complications of Peptic Ulcer. Another talk, with lantern slides, was given by Dr. Winchell McK. Craig, his subject being, Surgical Treatment of Spinal Cord Lesions.

C. W. Brown, Secretary.

Dallas-Guthrie Society Annual Picnic

The annual picnic meeting of the Dallas-Guthrie County Medical Society was held at The Meadows, Woodward, Iowa, July 26, with Dr. and Mrs. M. N. Voldeng entertaining. After the noon picnic dinner the members and guests assembled in The Meadows auditorium, which despite the day's heat was delightfully cool; and heard the afternoon program. After Dr. Channing Smith, chairman of the Council of the state, had introduced the guests, Dr. H. S. Houghton, dean of the College of Medicine, State University of Iowa, in a paper on The University and Medical Education, gave a most interesting and scholarly exposition of the historical and present relationship of the medical school to the profession. President-elect Dr. John Peck spoke upon The Aim of the State Society and showed how the officers of the state society were today taking definite steps to carry out each of the specific objectives of the state organization as set forth in its constitution seventy-seven years ago, and indicated that the recent employment of a managing director was in furtherance of these definite ends. Mr. Blank, the new managing director, was introduced and urged that present day developments demand the closest organization and cooperation of the profession. Dr. Henry Albert, commissioner of the State Board of Health, then answered several questions regarding "Malta Fever", and explained briefly the sharp limitations which the State Board practices to keep its activities out of the field of the private physician.

(Editor's Note: After the above account had been written, we received the interesting story below, which cleverly sets forth how "others see us.")

WE VISIT THE DOCTORS

By Ruth M. Wilber

As stowaway, interloper, spy, reporter or distinguished guest, according to the way you think, we attended the meeting of the Dallas-Guthrie County Medical Association at Woodward, Thursday, July 26.

Surrounded with such an atmosphere of culture, we might have felt out of place, for we were the sole person not connected in some way with the family of an M.D. but we have never met a class of people with whom we felt less the need of saying "Excuse me for living".

At noon or soon after, a picnic dinner that assumed the appearance of a banquet—fine napery, silver, nicely laid tables—was served. A doctor by the name of Glue led the music, and he first suggested that we sing "Let's all get together". He surely did cement a fine feeling of friendliness.

Along about 2 o'clock the doctors assembled in the chapel, and we listened to all the program. Dr. Houghton of Iowa City spoke first on a very interesting subject. We didn't understand it, but it sounded nice. He used such words as diverticulum, and streptococcus, and herpes zoster. He looked very learned and cultured and aloof. My! but he

seemed a serious fellow. He said he wished the health of the nation could keep up with the great mechanical achievements of the age, which seems to be another way of saying that an airplane is as good as its pilot.

Dr. Peck of Des Moines also spoke, and his talk was uplifting though it, too, was caviar to our taste. However he translated most of his language, explaining the meaning of status quo, and hors de combat and demi tasse. He thought local doctors should write articles on health for the newspapers, and also emphasized the need of periodic health examinations.

Vernon Blank is just a newspaper man, and not a doctor, at all. But he used empirical, and persiflage and facetious, which shows that he is their equal, if a knowledge of English as she is spoke, is a measure of fitness for that distinction. We mean to look those words up.

There was a doctor with a Vandyke beard, just an incipient one—incipient beard, not doctor—goodness! no—whose name is Albert, and he talked about undulant fever, sometimes called Malta fever. It seems to be the dernier cri in diseases.

We went through the lovely home of Dr. and Mrs. Voldeng, the hosts, where Mrs. Voldeng refreshed her guests with cooling drinks throughout the afternoon.

It was all most inspiring, and if ever Dr. and Mrs. Sherman ask us to go again, we will be there, though they speak Greek or Volapuk, or even Hindoostanee.

Dexter, Iowa, July 30, 1928.

Fayette County Medical Society

Monday, August 6, the Fayette County Medical Society met with Dr. and Mrs. Smittle of Waucoma. Dr. G. M. Wasson of Oelwein, gave an interesting report of a case which could not be diagnosed, and which upon an exploratory laparotomy showed a band of omentum as a causative factor. Dr. Thein of Oelwein presented a paper, Maxillary Infections; and Dr. C. C. Hall of Maynard, presented a paper upon Cardiac Pain.

Hancock-Winnebag County Medical Society

The July meeting of the Hancock-Winnebag County Medical Society was held in Garner, the twenty-seventh, at two o'clock.

This meeting was held in connection with the Iowa Tuberculosis Association, the clinic portion of which was in charge of Dr. John Peck and Dr. Merrill Myers of Des Moines. These men examined the cases and gave very instructive talks and demonstrations on outstanding ones. Rheumatic heart disease was the chief subject in the heart section, while the topic of tuberculosis carriers led the field in the lung section.

A short business meeting was held following the clinic with twelve members and four visiting members present. This society feels very much honored

indeed at having present both the president and the president-elect of the State Medical Society.

A committee was appointed by the president to draft resolutions of condolence for Dr. Frasier of Garner, who recently passed away.

The application of Dr. Wm. Schroder of Thompson for membership was presented and approved.

After discussion it was decided that the president ask for volunteers to present a scientific program among the members for the next meeting, the participants to supplement cases in lieu of papers if they so desire.

The society accepted the invitation of the Garner members to hold the December meeting at that place.

A delightful fish dinner was served the members and visitors by the society.

George E. Snearly, Sec'y.

Story County Celebration

The physicians of Nevada were hosts to the other doctors of Story county at a birthday celebration in honor of Dr. F. C. Smith at the Story Hotel, Tuesday evening, July 31st. Following the dinner and short program of toasts, Dr. Smith was presented with a silver loving cup, inscribed, From Nevada Physicians to F. S. Smith, M.D., in Remembrance of his Seventy-fifth Birthday.

Upper Des Moines Medical Society Meeting

The summer meeting of the Upper Des Moines Medical Society was held at Terrace Park Casino, Thursday, August 16, 1928, with vice-president, J. B. Knipe of Armstrong presiding. At the morning meeting, Dr. D. C. Steelsmith, deputy commissioner Iowa State Board of Health, presented a paper on Plans and Policies of the State Department of Health with Reference to Venereal Diseases and Diphtheria, in the course of which he urged that physicians through their county societies, should at all times take an active interest and part in legislation.

After lunch Dr. H. A. Miller of the Fairmont Clinic, Fairmont, Minnesota, presented a paper, Dystocia Due to Large Polycystic Kidneys in the Fetus; following which Dr. C. F. Starr, Park Hospital Clinic, Mason City, read a paper upon Complete Uterine Inversion Following Delivery. Dean Houghton of the State University College of Medicine gave an interesting discussion of the Relationship between the College of Medicine and the Profession at Large and the Community; after which the society adjourned to the Masonic hall in Milford, where the afternoon program was completed with three papers that were illustrated by lantern slides: Dr. W. W. Bowen, Fort Dodge, Lung Abscess; Dr. C. B. Luginbuhl, Des Moines, Differential Diagnosis in Pain of the Upper Abdomen; Dr. A. B. Rivers, Mayo Clinic, Rochester, Minnesota, Symptomatology of Recurring Peptic Ulcer.

An interesting cabaret program accompanied the banquet served in the ball room, after which Dr. T.

U. McManus of Waterloo, president of the State Society, was introduced as the speaker of the evening. After introducing president-elect Peck, Dr. Smith, chairman of the Council, and the new managing director, Mr. Blank, Dr. McManus presented a carefully prepared and interesting paper on the Problems Confronting the Medical Profession of Iowa.

Iowa-Illinois Central District Society Meeting

The annual meeting of the Iowa-Illinois Central District Medical Association, was held at the Davenport Outing Club, Thursday, August 9, at which time Dr. J. D. Cantwell of Davenport was elected president; Dr. B. J. Lachner of Rock Island, vice-president; Dr. Harry Lamb of Davenport, secretary, and Dr. J. H. Fowler of East Moline, treasurer.

Dr. W. H. Holmes, associate professor of medicine at Northwestern University Medical School presented a paper, Clinical Diagnosis of Diseases of the Spinal Cord; and Dr. Loyal Davis, associate professor of surgery at Northwestern University Medical School, spoke upon Surgery of the Spine and Cord, illustrating his talk with motion pictures.

Cerro Gordo Medical Society Meeting

There was a meeting of twenty-five members at the Hanford Hotel, where a 6:30 dinner was enjoyed by all. Following the dinner there was a business session, after which a program was given as follows: Endocervicitis, by Dr. R. Brisbine; Use of Ultra-Violet Ray in Hyperemesis Gravidarum, by Dr. H. D. Holman; and Complete Inversion of Uterus Following Delivery, by Dr. C. F. Starr.

C. M. Franchere, Sec'y.

PERSONAL MENTION

Dr. Harold Powers, son of the late Dr. Henry A. Powers and brother of Dr. Robert Powers of Emmetsburg has been appointed to the staff of the Le Mars Clinic, according to a recent announcement. Dr. A. W. Naslund of Minneapolis is also an addition to the Le Mars Hospital.

Dr. and Mrs. C. F. Applegate, formerly of Mount Pleasant, Iowa, who recently spent a year in a trip around the world are spending the summer months in an extended trip through Alaska.

Dr. C. R. Jones of Griswold, long a member of Cass County Medical Society, is leaving for San Diego, California, where he is to locate with his family.

Two members of the Iowa State Medical Society have recently announced that their sons were entering practice with them. Dr. J. A. Williams of Belle Plaine is opening a new office, in which his son, Dr.

Nathan Williams is to share. Dr. A. E. Wanamaker of Hamburg is taking into his office, Dr. Roy, his son, a graduate of the Nebraska University College of Medicine, and who has completed his internship in the Wise Memorial Hospital in Omaha.

Dr. H. R. Sugg is the new president of the Iowa State Board of Health, having been elected to that position at the meeting held in Des Moines, July 18.

Dr. M. E. O'Keefe of Council Bluffs, who was seriously injured in an airplane crash, reported in a previous issue of the Journal, is up and about again and on the road to complete recovery.

Dr. H. L. Johnston, for the past six years of Indianola, is moving to Ames, where he will be a member of the staff of the Iowa State College.

Dr. Louis H. Kornder of Davenport left September 1 for an extended trip in Europe during which he will spend considerable time in Vienna taking advantage of special clinics, lectures and surgical work.

The Iowa Methodist Hospital of Des Moines announces the election of Mr. R. A. Nettleton as superintendent. Mr. Nettleton who has been connected with the hospital for some time has since 1927 been acting superintendent.

In the future Dr. Charles H. De Vault will be associated with Dr. C. C. Griffith in the practice of medicine in Vinton, Iowa. Dr. De Vault, who is a native of Iowa, having been born at Newell, comes to Vinton from St. Paul, Minnesota, where he has been serving as an interne at the St. Paul City Hospital, specializing in surgery and maternity work.

Dr. William Hearst of Cedar Falls has returned to his home from Chicago, where he underwent a successful skin grafting operation upon one of his hands, which had been burned by x-ray.

Dr. W. S. Chester is now located in Knoxville, having recently moved there from Haydock, where he has been practicing.

Dr. C. H. Mitchell, formerly of Leon, has moved to Indianola, where he will continue his practice.

MARRIAGES

Dr. Edward W. Thielen, of Grundy Center, and Miss Muriel Krebs, of Riverside, Iowa, were married at St. Patrick's church in Iowa City on the morning of July 24. Immediately following the wedding breakfast, Dr. and Mrs. Thielen left by car for Salt Lake City. From that place they expect to select a permanent location.

Miss Ruth Hertlein and Dr. C. H. Graening were married at 9 a. m., August 28, at Waverly, Iowa. The bridegroom's father, Rev. John Graening, a Lutheran clergyman officiated. Dr. and Mrs. Graening will occupy his residence on South Water street on their return from a short trip.

OBITUARY

Alanson M. Pond, son of Orlando and Lucia Pond, was born in Independence, Iowa, August 24, 1869, and died in Los Angeles, California, July 17, 1928.

He graduated from the Keokuk Medical College in 1891, after which he went to Marble Rock, Iowa, remaining there but a short time when he moved to Clear Lake, thence to Webster City where he practiced for ten years.

After spending several months in the clinics of Europe as a post-graduate student, he located at Dubuque where he continued in the practice of surgery until 1918, when he enlisted in the Medical Corps of the United States Army, serving until the end of the war, when he returned to Dubuque and resumed practice.

In 1920, he suffered a severe illness from which he never completely recovered. He made continued efforts to practice until 1925, when his health completely broke down. After a year's effort to regain his health, he went to California, hoping to meet with improved conditions. Soon after his arrival there he was taken severely ill and spent the balance of his life in hospital and sanitarium until his death.

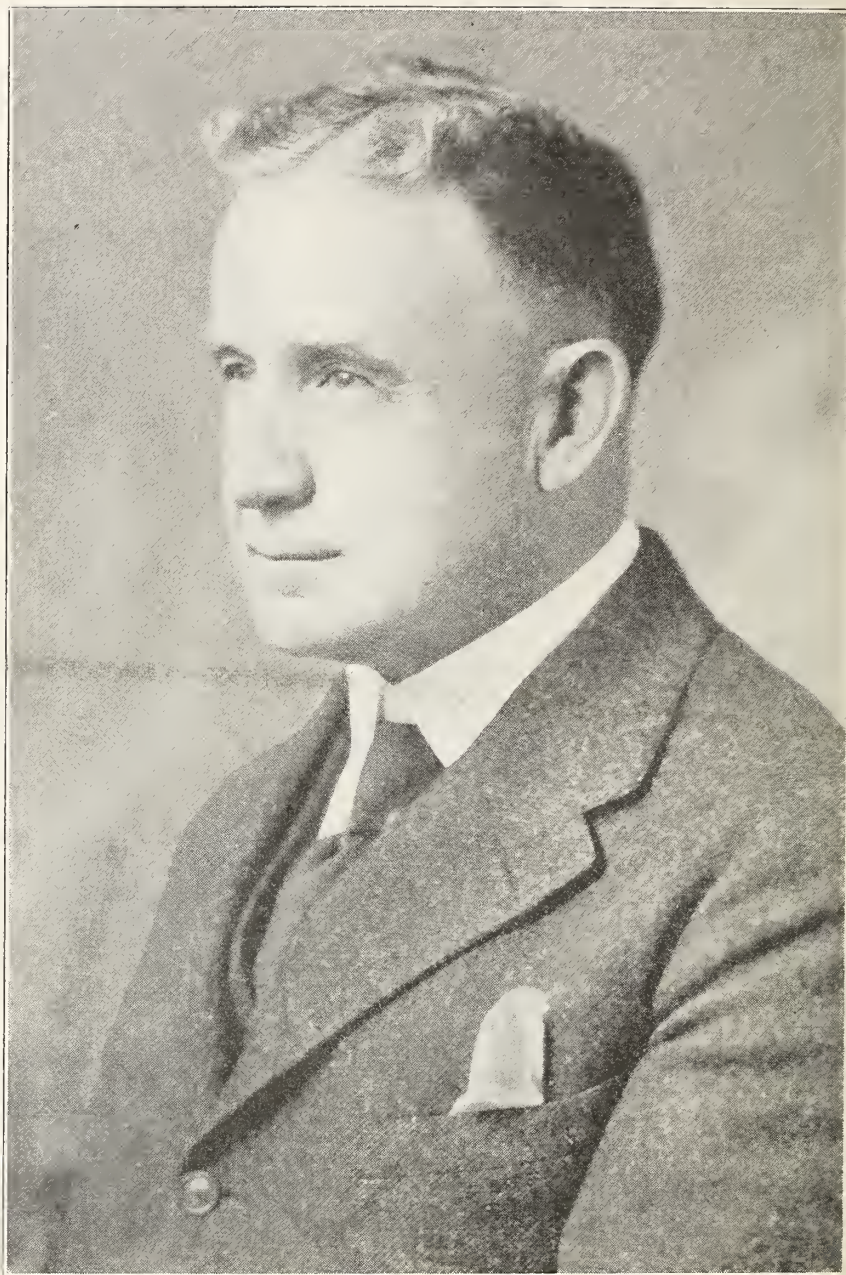
Dr. Pond was an enthusiastic student of medicine, always endeavoring to be in the forefront of his profession. The recognition of his ability was expressed in 1921, when he was made president of the Iowa State Medical Society, an honor which comes only to the outstanding men of the profession.

Dr. Pond was a most affable gentleman, readily making friendships of a lasting character wherever he went, his acquaintance covering many states.

At the time he was taken ill, he was a member of the Dubuque County Medical Society, Iowa State Medical Society, American Medical Association, Western Surgical Association, and the American College of Surgeons.

His fraternal affiliations were with the A. F. & A. M., Chapter, Knights Templar and Mystic Shrine.

Surviving him are his widow, Mrs. Ida Pond, a daughter, Dorothy Pond, and a grandson, Robert Pond, all of Dubuque.



ALANSON M. POND—(1869-1928)

President of the Iowa State Medical Society, 1921

was due to a chronic heart disease from which it was known he had suffered for some time.

Dr. Keating was fifty years of age, born in Chester, Pennsylvania, and graduated from Northwestern University School of Medicine in 1904. He practiced in Wisconsin, in Lehigh, Iowa, and for thirteen years in Williams.

Dr. W. W. Keating of Williams was found dead in his car June 6, 1928. It was supposed that his death

Robert Joynt Nestor was born April 5, 1862 in Pittsburg, Pennsylvania. He moved to Emmetsburg, Iowa, in 1868; taught school for several years preceding his entrance in the medical department of the University of Iowa, from which he was graduated in 1890. He practiced ten years at Hudson, Iowa, and in 1900 was married to Miss Ida Brandhorst of Hudson. From 1900 to 1903 he studied in

the University of Heidelberg and the University of Vienna. He located in Waterloo in 1903 and in 1906 he became local surgeon for the Illinois Central Railroad Company, continuing in that position until the time of his death, May 29, 1928.

Dr. Nestor was a cousin of Dr. A. J. Joynt of Waterloo, Drs. M. J. and R. J. Joynt of Le Mars, and Dr. M. F. Joynt of Marcus, Iowa.

Dr. B. C. Knudsen of Clinton died from cardiac failure at Rochester, Minnesota, August 11, at the age of fifty-eight. He came to Iowa from Denmark at the age of fourteen and graduated from the Iowa State Medical College in 1898. In 1901 he married Miss Thyra Dann who survives him, as do also three children; Dr. Hubert Knudsen, Mayo Clinic, and two younger children, Victor and Etta. The funeral was held Tuesday, August 14 in Clinton and the active staff of the Jane Lamb Memorial Hospital acted as pall bearers.

BOOK REVIEWS

APPLIED BIO-CHEMISTRY

By Withrow Morse, Ph.D., Professor of Physiological Chemistry and Toxicology, Jefferson Medical College, Philadelphia, Second Edition, Revised and Reset with the Cooperation of Joseph M. Looney, M.D., Assistant Professor of Physiological Chemistry, Jefferson Medical College; 988 Pages with 272 Illustrations. Philadelphia and London: W. B. Saunders Company, 1927. Cloth, \$7.00 Net.

The close dependence of medical science upon the so-called "fundamental sciences" is certainly nowhere more strikingly illustrated than in the relationship which exists between modern medicine and the researches of biochemistry. The discoveries of the biochemist are eagerly sought by the student of medical science, since it is through this avenue that clinical medicine can be most rapidly advanced. The field of biochemistry is a fertile one and one in which there have been many laborers. It is not surprising, then, that a text upon this subject which was up-to-date eighteen months ago should now be in its second edition due to a revision necessitated by many noteworthy researches in this branch of science.

This volume is one of the most worthwhile which has come to my attention. It contains less discussion of abstract and theoretical matters which often confuse the average physician, and more of concrete and practical information upon which the science has been found useful in the development of modern medical practice. The author's style in writing is forceful and his presentation fascinating. Those unfamiliar with this volume have a treat in store, while those who have read the first edition will welcome this revision.

DISEASE OF THE THROAT, NOSE AND EAR

By Dan McKenzie, M.D., F.R.C.S.E., President, 1926-27, Section of Otology, Royal Society of Medicine; Surgeon, Central London Throat and Ear Hospital, Etc. Second Edition. St. Louis, The C. V. Mosby Company, 1928.

This two-volume edition of the work of this well-known British authority is for the first time printed in America as a first American edition. It brings to the oto-laryngologists and general practitioners of this country the British viewpoint on diseases of the nose, throat and ear. Every reader will be impressed with the writer's care for details, particularly in the methods and technique of examination. The details of surgical procedures discussed reflect his thoroughness, and in all instances the operations discussed are those that have stood the acid test of use. The text material has been grouped in convenient sections, and each section is preceded by an introductory chapter describing special methods of examination useful in the group of conditions described.

The text contains two hundred and fifty illustrations in black and white, and three colored plates. The illustrations have been selected with great care, and faithfully reproduce the conditions discussed. This edition will be found invaluable to the oto-laryngologist and a most useful reference book for the general practitioner.

CLINICAL ASPECTS OF THE ELECTROCARDIOGRAM

Second Edition, Revised, by Harold E. B. Pardee, M.D., Assistant Professor of Clinical Medicine, Cornell University Medical School. Published April, 1928, by Paul B. Hoeber, Inc., New York.

The author was trained under the American authority on electrocardiography, Dr. Horatio B. Williams. The first edition of Dr. Pardee's book, published in 1924, is one of the outstanding texts upon the subject. The present edition has been revised, and especial attention has been given to the electrocardiographic signs of heart muscle disease and coronary artery occlusion, subjects receiving wide discussion today. He avoids lengthy comment on moot questions. The illustrations are, as a rule, clear. The diagrams on pages 11 and 130 need the touch of an artist. Of particular value are the chapter summaries and the sections given to the clinical significance of abnormal waves, of abnormal rate and rhythm, and the clinical application of the electrocardiogram. Illustrations of instruments manufactured by four different companies are shown, including "portable" models. The bibliography adds to the usefulness of the volume.

Dr. Pardee's book is recommended to students of electrocardiography, especially to those physicians who desire to learn the subject and keep abreast with it but whose medical school training did not include it.

M. M. M.

NERVE TRACTS OF THE BRAIN AND CORD

By William Keiller, F.R.C.S., Prof. of Anatomy and Applied Anatomy, University of Texas. Price, \$8.00. Published by Macmillan Co., New York, 1927.

Dr. Keiller embodies in his treatise the methods of teaching the subject developed by him during many years of experience and may therefore be accepted as representing a successful guide in the study of the nerve tracts. Certainly a preliminary knowledge of the anatomy, physiology, and pathology should be considered as the essential basis for the study of diseases of the brain and nervous system in their clinical aspects. In the development of his plan of study, the author gives in Part I, a laboratory manual, and in Part II, a summary of the anatomy and physiology of the nervous system. In Part III, covering the main points concerning well known nervous diseases, fundamental data are correlated with symptomatology. This section does not appeal to the reviewer as being as well adapted for class work as do those preceding. The grouping of the large number of illustrations at the back of the book, has some advantages, but the use of the long diagram is somewhat unsatisfactory due to the use of the small pictures and lettering. Taken as a whole, the work is worth while and will be of value as collateral reading for those interested in this branch of medical science.

H. R. R.

SYPHILIS

A Treatise on Etiology, Pathology, Symptomatology, Diagnosis, Prognosis, Prophylaxis, and Treatment. By Henry H. Hazen, A.M., M.D., Professor of Dermatology and Syphilology, Medical Department of Georgetown University; Professor of Dermatology and Syphilology, Medical Department of Howard University, Etc. Second Edition. With 165 Illustrations Including 16 Figures in Colors. St. Louis. The C. V. Mosby Co., 1928.

This second edition of Dr. Hazen's book embodies considerable revision. Certain chapters have been completely rewritten. In the first edition, Dr. Hazen enjoyed the collaboration of a group of well-recognized specialists. In the present edition, the number of collaborating physicians has been reduced. From his experience in a busy southern medical center, the author has had a wonderful opportunity of observing syphilis, particularly in the negro population. This experience is reflected in the clinical descriptions throughout the volume. As might be expected, the discussion of the cutaneous lesions of this disease has received elaborate consideration. The illustrations are for the most part well selected. The volume should be useful to the student or the general practitioner. It is hardly comprehensive enough to be classed as a reference volume.

INTERNATIONAL CLINICS

A Quarterly of Illustrated Clinical Lectures and Especially Prepared Clinical Articles on Treatment, Medicine, Surgery and Allied Branches. Edited by Henry Cattell, A.M., M.D., Philadelphia, and C. H. Mayo, M.D., Rochester, Minnesota. J. B. Lippincott Company, 1927.

This volume is introduced by a series of clinics under the head of Travel Clinics in Germany, Norway, Sweden and England—brief but full of interest.

In the first lecture Professor C. Hegler of St. George Hospital, Hamburg, Germany, shows that there is a rise in pernicious anemia, thrombosis and embolism in Germany. Johannes Heimbeck of Oslo, Norway; reports a series of von Piquets' tests performed in a study of Tubercular Immunity. Ynngar Ustredt of Oslo, Norway, presents a study of the Serum Treatment of Diphtheria. These lectures have much of scientific interest.

An interesting lecture is by Dr. William Lintz of Shore Road Hospital, Brooklyn, New York, on High Blood-Pressure, which is worthy of careful study.

D. S. F.

BEDSIDE DIAGNOSIS

By American Authors, Edited by George Blumer, M.D., Clinical Professor of Medicine, Yale University School of Medicine; Attending Physician to the New Haven Hospital. Three Octavo Volumes, Totaling 2820 Pages, Containing 890 Illustrations. W. B. Saunders Company, 1928. Cloth \$30.00 a Set, Separate Desk Index Free.

This is a work of remarkable interest in that it presents the practice of medicine from an unusual point of view. During recent years it would seem that laboratory tests have been the foundation of diagnosis and treatment. It would appear now that there is a tendency to turn back to bedside studies of disease and the preceptorial idea of medical instruction in medical education. No one would for a moment disregard the technical methods of examination to meet the increased knowledge and complexity of medicine.

The plan of this book is to bring out the bedside method of diagnosis in which the senses are brought into requisition in the physical diagnosis of the ailment. The authors to whom the various subjects have been assigned, approach the patient somewhat in the manner of a generation ago. The older practitioner will recognize the method in which the examination was conducted through the exercise of the senses supplemented by the newer technical methods. No revolution of method of approach is undertaken, only giving greater prominence to the history, symptomatology, causes and examination, the elements which constitute the art of medicine compounded with the science of medicine as revealed by the laboratory.

(Continued on adv. page xviii)

Medical Society of Missouri Valley

has arranged a Post-Graduate Course of three days at Omaha, Nebraska, October 30th and 31st and November 1st.

Programs are now sponsored by the Medical Units—St. Louis University, Washington University, Creighton University, University of Kansas, University of Nebraska, University of Minnesota, and University of Iowa.

Interesting clinics and addresses will be given by members of the Society, also the following distinguished guests will appear on the program:

Leonard G. Rowntree, Mayo Clinic, Rochester, Minnesota—Some Phase of Liver Disease (Exact title to be supplied later).

James B. Herrick, Professor of Medicine, Rush Medical School, Chicago—"The Treatment of Heart Disease".

A. D. Ivy, Professor of Physiology, Northwestern University Medical School, Chicago—"The Physiology of the Gallbladder" and "The Etiology of Gastric and Duodenal Ulcer".

FRED SMITH, M.D.
Iowa City, Iowa
President

RALPH H. MAJOR, M.D.
Medical Arts Bldg., Kansas City, Mo.
President-Elect

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Omaha, Nebr.
Secretary-Treasurer

B. J. Clawson, University of Minnesota, Minneapolis—"Myocarditis".

Carl R. Moore, Professor of Biology, University of Chicago, Chicago—"Studies on the Testicle with Especial Reference to Transplantation".

Frank C. Mann, Mayo Foundation, Rochester, Minnesota—"Functions of the Liver".

M. L. Harris, President-Elect of the A. M. A.—(Subject to be selected).

The Colfax Sanitarium and Grand Hotel Springs COLFAX, IOWA



THE COLFAX SANITARIUM

A modern institute devoted to the treatment of rheumatism, neuritis, and kindred ailments.

Two complete units—separately managed—one for the care of those needing nursing attention—the other for milder cases desiring a change and relaxation for recuperation. Hydro-therapy with approved medical methods employed.

Patients do not have to go out for treatment. Bath treatments have been administered here for over thirty years. Rates furnished on request.

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Trained masseurs and masseuses.

Bath treatments have been administered here

O. S. FATLAND, D.D.S.
M. E. HAGER, R.N.

BOOK REVIEWS

(Continued from page 378)

In this day of prevention of disease, the treatment of sick persons is in a measure lost sight of, but the time will probably never come when treatment will be unnecessary and when a full diagnosis can be disregarded.

The work differs from most work on clinical medicine in that we regard the sick patient as a person demanding the exercise of the art of medicine supplemented as far as may be with the science of medicine, regarding the diagnosis and treatment as of first importance.

As may be assumed by the number and size of the volumes, the whole subject of medicine is included.

D. S. F.

A TEXT-BOOK OF GENERAL BACTERIOLOGY

By Edwin O. Jordan, Ph.D., Professor of Bacteriology in the University of Chicago and in Rush Medical College. Ninth Edition, Thoroughly Revised. Octavo of 778 Pages With 191 Illustrations. Philadelphia and London: W. B. Saunders Company, 1928. Cloth \$6.00 Net.

This widely- and favorably-known Text-Book of General Bacteriology needs no introduction to the medical profession. The first edition of this work appeared in 1908, and for the past twenty years this book, through its many revisions, has been accepted and used as a standard text-book in medical colleges throughout America. The present ninth edition contains certain revisions necessitated by the advances made in this branch of medical science, the most noteworthy of which occur in the section dealing with Parasitic Protozoa. This chapter has been entirely rewritten. Dr. Jordan has added a few new illustrations to the large number already employed. The text is rather outstanding in the fact that the paragraphic type of presentation has been followed throughout, and that the illustrations are remarkably clear and well chosen.

R. R. S.

OPERATIVE SURGERY

By J. Shelton Horsley, M.D., F.A.C.S., Attending Surgeon, St. Elizabeth's Hospital, Richmond, Virginia. With 756 Illustrations. Illustrated by Miss Helen Lorraine. Third Edition. St. Louis, The C. V. Mosby Company. 1928.

This is the third edition of a well-recognized work on operative surgery. This edition was necessary to bring the scope and technique of the volume up to date. The most extensive addition has been that of a chapter on cicatricial contractions. This chapter is timely since it is the author's expressed viewpoint that surgery should not only correct or remove diseased tissues, but should also be directed towards

the restoration of a normal physiology to the part affected. The chapters on blood-vessel suture, blood transfusion, and plastic surgery of the face have altered materially as a result of recent investigations.

The volume is not encyclopedic in compass, but the commoner and more widely used operations are given in detail. One is given the benefit of a description of operative technique in plain detail, simplified by the generous use of well-executed illustrations. In all, the volume contains 756 black and white prints.

R. R. S.

NEW AND NON-OFFICIAL REMEDIES

Chicago, Illinois, June 29, 1928.

In addition to the articles enumerated in our letter of May 25th, the following have been accepted:

Abbott Laboratories:

Tablets Ephedrine Hydrochloride—Abbott, $\frac{1}{4}$ grain.

Deshell Laboratories, Inc.:

Petrolagar (Unsweetened).

Mead Johnson & Co.:

Mead's Standardized Cod Liver Oil, Flavored.

Parke, Davis & Co.:

Glaseptic Ampoules Ephedrine Sulphate—P. D. & Co., 0.05 Gm. ($\frac{3}{4}$ grain), 1 cc.

Capsules Ephedrine Sulphate—P. D. & Co., 0.05 Gm. ($\frac{3}{4}$ grain).

Paroidin.

Prophylacto Mfg. Co.:

Capsules Ephedrine Hydrochloride—Pemco, 0.3 Gm.

Capsules Ephedrine Hydrochloride—Pemco, $\frac{1}{4}$ grain.

E. R. Squibb & Sons:

Squibb's Vitavose.

Swan-Myers Co.:

Gentian Violet Capsules—Swan-Myers, 1 grain.

Chicago, Illinois, July 27, 1928.

In addition to the articles enumerated in our letter of June 29, the following have been accepted:

Chicago Dietetic Supply House:

Cellu Soy Bean Flour.

Cellu Soy Crisp.

Mead Johnson & Co.:

Mead's Powdered Boilable Lactic Acid Milk.

Parke, Davis & Co.:

Cotton Protein Extract Diagnostic—P. D. & Co.; Cottonseed (Cake) Protein Extract Diagnostic—P. D. & Co.; Goat Hair Protein Extract Diagnostic—P. D. & Co.; Human Hair Protein Extract Diagnostic—P. D. & Co.; Kapok Protein Extract Diagnostic—P. D. & Co.; Peptone Protein Extract Diagnostic—P. D. & Co.; Poplar Pollen Protein Extract Diagnostic—P. D. & Co.; Sunflower Pollen Protein Extract Diagnostic—P. D. & Co.; Sweet Vernal Grass Pollen Protein Extract Diagnostic—P. D. & Co.

The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, OCTOBER, 1928

No. 10

THE MANAGEMENT AND TREATMENT OF HEART DISEASE*

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Rochester, Minnesota

Heart disease, in all its phases, is one of the most important problems confronting the medical profession today, owing to the fact that it stands as the greatest individual cause of death in this country. That this disease is increasing is clearly shown by a survey of the statistics of leading life insurance companies of America and by the reports of numerous large medical institutions.

The problem of heart disease must be considered from three coordinating aspects: (1) prevention; (2) the general management of patients already afflicted with heart disease, and (3) the actual treatment of patients manifesting various symptoms of heart failure.

I have been invited to appear before you to discuss some of the phases of the management and treatment of patients suffering from heart disease but I cannot resist the opportunity to make a few remarks with regard to its prevention.

In considering the prevention of heart disease, we must concern ourselves chiefly with infants and children of the present and coming generations. We must evolve a plan, limitless in scope, supported by the interest and effort of every practitioner of medicine, to carry on successfully the fight against the disease. The medical profession must educate itself in the problems of heart disease, so that it may intelligently interpret the early and often subtle signs of its presence. Like other diseases, early recognition is often the deciding factor between premature death or the continuation of a useful life.

More attention and vigilance must be accorded patients suffering from acute infectious diseases, especially the acute infections of infancy, child-

hood and adolescence. This is particularly true of rheumatic fever, chorea, tonsillitis, quinsy, acute upper respiratory infections, scarlet fever, measles, and so forth. The heart should be examined daily and if the convalescence is interrupted by persistent fever, unexplained leukocytosis or rapid heart action, even in the absence of objective physical signs of involvement of the heart, such involvement should be suspected, and the patient kept at complete rest in bed for a much longer period.

Rheumatic fever is, of course, the outstanding cause of heart disease in childhood; it is the etiologic factor in approximately 90 per cent of cases in the first and second decades of life. All available evidence clearly indicates rheumatic fever as an infectious disease attended by a considerable degree of communicability, as evidenced by the clearly recorded instances of small local epidemics and the occurrence of multiple cases in the same family. Ever increasing bacteriologic investigations are suggestive of a streptococcus as the specific causative organism. It has been clearly shown that rheumatic fever often occurs following acute tonsillitis, acute pharyngitis, scarlet fever and the other acute exanthemata, yet it occurs independent of such infections.

Rheumatic fever has been notorious for its predilection to the heart but it must now be recognized as a disease affecting the body quite generally. It affects the lungs, pleura, voluntary and involuntary muscles, nerves, skin and parenchymatous viscera. The heart is extensively involved not only the valve leaflets and rings but also the mural endocardium of both auricles and ventricles, the myocardium, pericardium, arteries and veins. In this connection, it should be noted that cardiac involvement usually occurs with the first attack of rheumatic fever.

The mortality is low during the acute febrile illness. Rosenau in an analysis of 20,000 cases found the death rate to be 1.7 per cent. The ultimate mortality, especially from heart disease, is enormous; the average age at death in my series of cases was thirty-two.

*Read at the special course in the Diseases of the Heart and Lungs, given by the Iowa Tuberculosis Association and the Iowa Heart Association (under the auspices of the Extension Division and the College of Medicine, University of Iowa), Iowa City, Iowa, June 5, 6, 7, 8, 1928.

Careful repeated examination of children before and during the school age is important and in the final analysis is the greatest weapon in the hands of the medical profession in the prevention of disease. I regret to state that some physicians have resented the periodic examination of children at school or in infant clinics and undoubtedly this attitude has been well founded in certain instances. One must, however, clearly bear in mind the purposes and ideals of this health movement which has sprung up all over the country as the result of popular demand. Perhaps, if as physicians we had seen our duty clearly and had fulfilled our obligations, such a movement would not be necessary. In order to conquer heart disease, it is absolutely necessary to overlook at times what appears to be petty interference or the thoughtless act of some one, and to cooperate one with the other, for the health and the life of the children of our country. Many children in America would be denied the service of medical examination were it not for the function of public clinics. It should be remembered that the strength of a nation depends on the education and health of its people, and if certain persons lack education and intelligence others must do the thinking for them and, if possible, protect their health.

Heart disease in childhood and adolescence, as I have mentioned, is chiefly a consideration of rheumatic heart disease. In infancy we are concerned chiefly with congenital malformations of the heart which may remain a problem to the adolescent period and sometimes to adult life. In early, middle and later adult life the problem is largely that of the cardiovascular injury, resulting from syphilis, hypertension, arterial degeneration and hyperthyroidism.

The general management of heart disease, therefore means a consideration of many factors and phases of the problem. The point that needs greatest emphasis is that the patient handicapped with cardiac disease should be treated individually. First an accurate diagnosis should be made, taking into consideration the etiologic factor or factors if possible, the extent of injury to the heart and circulatory system, the condition of the body as a whole, and the presence of associated factors influencing the cardiopathy.

The patient's occupation always deserves due consideration, for much physical exertion is not compatible with heart disease, and the patient must seek employment in which the hazards of physical stress and strain are minimized. This is true even if the patient is apparently tolerating his activities well, as it is always necessary to

anticipate the future and the effect of the wear and tear of time on the diseased heart.

In general, the patient's physical activity must be restricted, the degree of restriction imposed being determined by his condition and by his temperament. Temperament is well worth careful consideration, since certain patients rush through life, spending their energy without discretion, and require more supervision and restriction than those who are moderate in their activities.

The child suffering from heart disease must not be permitted to compete with normal children, either in play or in school activities; protection for the future must be the watchword. Some of the larger cities already have established special schools or classes for children afflicted with heart disease. In these schools stair climbing is avoided, rest periods are enforced, working hours are curtailed, and all activities are closely supervised. A similar routine for individual children can be readily worked out even in rural schools, by the cooperation of physicians, teachers and parents.

The ideal cardiac regimen is not complete without the interjection of well planned recreation. In advising the patient to obtain more rest and relaxation the fact is often overlooked that even though the body is placed at complete rest for periods during the day, the mind keeps working, and that some minds require considerable attention. If this important phase of the management is neglected many patients become morbid, discouraged and very unhappy. The physician must be a psychotherapist and must meet these problems in each case. Occupational therapy scientifically directed, as carried out in hospitals and larger institutions, does much to help the patients spend their time happily and usefully, and to some extent it can be carried out in the home.

Exercise as a measure in the maintenance of good general health is beneficial in heart disease, provided that the cardiac reserve is sufficient to permit it safely. I do not agree with those physicians who advocate mountain climbing and other strenuous forms of exercise for certain patients with heart disease, since by so doing an unknown and unnecessary hazard is introduced. Walking is probably the best form of exercise because it can be controlled. Golf played on a level course is safe for some patients, but this form of exercise requires careful supervision.

The patient's diet is often an extremely important phase of the management, especially in the presence of obesity. There is little doubt that chronic overweight exerts a detrimental influence on the course of heart disease, not only from the

purely mechanical factors involved, but as evidenced from the available statistical data indicating the frequent association of obesity and the so-called degenerative cardiovascular diseases.

In hypertensive and coronary heart disease especially, the restriction of animal proteins seems advisable. This measure finds scientific justification in the experimental studies dealing with the specific dynamic action of protein, showing that twenty-four hours are required for the complete utilization and elimination of a meal comprising an average amount of protein. The dangers of heavy protein intake become apparent if the possible cumulative effect of protein by-products in the tissues and the potential toxic effects of their retention are considered. The degree of protein restriction must be dealt with individually and to some extent must be determined by the patient's reaction to it, as evidenced by loss of weight and strength.

Heavy meals are forbidden in all cases of heart disease since they may be the cause of sudden death.

The Karell diet, devised many years ago, merits mention. As will be remembered, it consisted of 800 c.c. of skimmed milk in twenty-four hours. It was advocated particularly in cases of cardiac edema. It has often been successful in the mobilization of fluids but as it is a semi-starvation diet, its use is extremely limited. The diet suggested by Smith, Gibson and Ross is splendid. It contains 44 gm. of protein, 110 gm. of fat and 222 gm. of carbohydrate, with a total energy value of 2100 calories. The reduction of salt intake is significant, particularly if edema is present. It is often wise to restrict fluids; the degree of restriction must be an individual problem. If congestive heart failure exists, the total fluid intake during twenty-four hours must often be reduced to from 800 to 1000 c.c. During extremely warm weather, when a great deal of fluid is lost through the skin, it may be necessary to increase the fluid intake.

A discussion of the treatment of heart disease by drugs would occupy several volumes. The drugs to be considered here are those which, in the light of present knowledge, are generally regarded as possessing therapeutic value.

Digitalis—Digitalis is the sovereign drug in the treatment of heart disease and in recent years much knowledge has been gained regarding its action, its standardization and its administration. In therapeutic dosage in man and in experimental animals it has been shown to increase the amplitude of ventricular contraction by its direct action on heart muscle. Diminution in cardiac output,

increase in tonicity, and diminution in dilatation, have been demonstrated in normal dogs but such effects have as yet not been shown in man. Slowing of the heart rate with regular rhythm rarely occurs except in patients with edema and occasionally in children. The vagus center and probably the terminal vagal endings are stimulated, thus increasing the auriculoventricular conduction time. The most striking effects of digitalis are observed in cases of rapid auricular fibrillation in which often dramatic slowing in ventricular rate occurs, partly from vagal stimulation and partly from direct depressant action on the auriculoventricular junctional tissues. A constant effect on blood-pressure does not occur. The diuretic effect of digitalis is not due to stimulation of the renal epithelium, as formerly believed, but is due chiefly to improvement in the renal and general circulation.

The chief indication for the administration of digitalis is heart failure, as indicated by dyspnea, orthopnea, edema, anasarca and visceral congestion. While cases exhibiting auricular fibrillation with rapid ventricular rates show the most remarkable results from digitalis, good results often occur in cases of regular rhythm.

In the presence of frequent ventricular extrasystoles care should be exercised in prescribing digitalis, since coupled rhythm is a sign of toxic effect of the drug. This must not be an absolute sign contraindicating this form of treatment, as in many cases extrasystoles occur from other causes and the underlying condition demands the administration of digitalis.

In partial or complete heart block the drug is clearly contraindicated, as further depression in conductivity may lead to disastrous results.

Digitalis is not contraindicated in hyperthyroidism but discretion must be employed in its administration and it should be limited to those cases with actual symptoms of heart failure.

Whenever possible, digitalis should be administered orally. Under certain conditions it can be given by rectum, although the indications for this mode of administration are rarely encountered. Certain available preparations can be given effectively by deep intramuscular injection, the therapeutic effect appearing within from three to three and a half hours.

The infusion of digitalis is no longer in general use, owing to its instability. It has been largely replaced by the standard tincture. The standardized powdered leaf in capsules, pills or tablets is also satisfactory although it does not possess the flexibility of range in dosage that the tincture possesses.

Much of the confusion and inadequacy regarding the use of the tincture of digitalis has occurred from improper dosage and measurement. It has been generally conceded that a drop, as delivered from the ordinary medicine dropper, is equivalent to a minim, an assumption that is entirely erroneous. Few droppers give the same size of drop, and differences occur with the same dropper held in various positions. In many instances in which the physician intends his patient to receive twenty-five drops of the tincture, the amount actually received is only 10 minims. It is always best to measure the drug in a graduate, preferably one graded in the metric system. For several years I have prescribed a graduate with each prescription of digitalis.

Massive dosage of digitalis is not to be recommended as a routine procedure since in certain cases it may be unnecessarily hazardous. A perfectly safe procedure is the oral administration of 1.5 to 2 c.c. three times daily until the physiologic effect of the drug is apparent. As a rule, the administration of 15 c.c. of the tincture in from forty-eight to sixty hours results in therapeutic effect.

The toxic effects of digitalis, consisting of nausea, vomiting, diarrhea, drowsiness, visual disturbances and mental confusion, are to be avoided. Severe intoxication, as evidenced by coupled beats, heart block and ventricular tachycardia, are obvious dangers. The mental confusion occasionally seen merits emphasis since this toxic action of digitalis is not generally recognized and often leads to death. It is usually ushered in by drowsiness, associated with disorientation regarding time and place, followed often by mumbling delirium and death. It is most likely to occur in older patients, especially those suffering from cardiopathies of the degenerative type.

Quinidin—Quinidin, a more recent therapeutic agent in the treatment of heart disease, has been of great value in the treatment of certain conditions. In about half of the cases of heart disease accompanied by auricular fibrillation quinidin will restore normal rhythm in a relatively short time. The specific effects of quinidin on the heart muscle are (1) depression of irritability; (2) depression of conductivity; (3) depression of stimulus production, and (4) prolongation of the refractory period. Vagal paralysis may occur. In order to understand the rationale of quinidin treatment, it is necessary to understand the nature of auricular fibrillation. Lewis and his co-workers, by extensive and careful experimentation, have shown the close relationship of the mechanism producing fibrillation and flutter. Both con-

ditions have for a basis an abnormal area of stimulus production, that is, a circus movement following a central path in the auricle. The resulting disorder depends on the degree of coordination of the abnormal mechanism. Pure flutter is the condition in which there is extraordinary regularity of auricular contraction and in which the excitation spreads uniformly over the auricle from cycle to cycle.

Impure flutter is similar, but less regular due to the dissemination of excitation in a less uniform manner. Fibrillation results from a more incoordinate method of impulse dissemination. It has been shown that in the fibrillating heart under the influence of quinidin a slowing in the rate of auricular oscillations occurs and the ventricular rate is increased until in certain cases the lengthening of the refractory period over the conduction time abolishes the circus movement and permits the pacemaker to resume its normal activity.

Many patients with auricular fibrillation are definitely improved after the restoration of normal rhythm by quinidin. It must, however, be remembered that auricular fibrillation is at times transient, or is a paroxysmal disorder and that normal rhythm may ensue without therapeutic intervention. This is particularly true in cases of exophthalmic goiter, and some of the beneficial results attributed to quinidin have occurred in such cases but it is of course doubtful whether the drug was in any way responsible for the restoration of normal rhythm.

The method of administering quinidin merits emphasis. Quinidin sulphate is best given in capsules in doses of from 0.3 to 0.4 gm. every four hours day and night. A study of the changes in the auricular and ventricular rates produced by a single dose of quinidin has shown that the heart recovers so rapidly from the effect of the drug that it must be given at frequent intervals. Failure to restore normal rhythm is often due to the fact that the drug is not administered during the night. Quinidin is chiefly eliminated in the urine and its elimination begins quickly and is greatest during the first twenty-four hours. It is well to give several smaller doses at first to determine the patient's tolerance. Not infrequently during its administration the ventricular rate becomes so rapid that it must be discontinued before a distinct therapeutic effect is reached. This condition may often be avoided by the administration of digitalis first, since digitalis produces block at the auriculoventricular juncture.

It is always well to have the patient at complete rest in bed when quinidin is first admin-

istered, as effort, excitement and any factors increasing heart rate tend to interfere with its favorable action.

There are certain hazards and disadvantages connected with the use of quinidin in cases of auricular fibrillation which should be fully appreciated. If one recalls the mechanics of auricular fibrillation, the greatest dangers of quinidin become apparent. The auricles in auricular fibrillation are no longer dynamic, they are distended in diastole and act more or less as passive reservoirs in the general circulation. They are emptied and filled chiefly by the suction action of the ventricles and by the pressure in the venous system. This status predisposes to the formation of mural thrombi in the auricles and the detachment of particles is rendered more probable by the restoration of the dynamic function of these chambers. Therefore, before quinidin is used in cases of rather long-standing auricular fibrillation the possibility of producing emboli which may result fatally must be considered seriously. This danger is particularly great when cardiac failure has recently occurred or is present, especially in the presence of mitral stenosis. Sudden death from respiratory paralysis has been observed occasionally. I have seen several instances of rather severe exfoliative dermatitis occurring after the administration of only moderate doses of quinidin.

Another objection to quinidin is the uncertainty with regard to the heart rate after the abolishment of fibrillation. If the newly established normal rhythm should be attended by a rapid rate, considerable difficulty may be encountered in its control as it is well known that a rapid regular heart rate does not respond so well to digitalis as does the rapid ventricular rate of auricular fibrillation. In quite a large proportion of cases of auricular flutter that fail to respond to digitalis, quinidin has been helpful in restoring normal rhythm. I have only employed quinidin when digitalis has failed to produce the desired results.

In many cases of extrasystolic arrhythmia much relief is afforded by small doses of quinidin and I have not observed untoward effects from the drug in these cases. Occasionally patients with paroxysmal tachycardia receive considerable benefit from quinidin administration over a long period; the attacks sometimes are definitely modified so that they occur less frequently, are shorter, less intense, and occasionally they cease altogether.

Theobromin and Allied Drugs—In 1924 we became interested in the Mayo Clinic in the use of theobromin in cases of angina pectoris asso-

ciated with coronary sclerosis. In a consideration of theobromin, other members of the group must also be considered, namely, theocin, theobromin sodiosalicylate, theophyllin, caffeinsodiumbenzoate and euphyllin.

As early as 1903, Loeb reported experimental data dealing with perfusion studies, in which he showed an increase in the rate of perfusion with theobromin. In selecting the drug as a therapeutic agent for angina pectoris it was hoped that there would be an increase in the coronary blood flow as suggested by the experimental studies of Loeb. A dose of 0.3 gm. of theobromin was administered in capsules with an equivalent amount of sodium bicarbonate, three times daily, and very encouraging results were noted in a certain group of cases. A year later the experiments of Smith, Miller and Graber were reported in which this drug group was carefully investigated by a study of the coronary blood flow. They found that euphyllin increased the flow from 40 to 90 per cent, and that theophyllin increased it from 20 to 45 per cent. They further showed that euphyllin, besides increasing the coronary flow, increases the amplitude of cardiac contraction for a short time and accelerates the rate from twenty to thirty beats each minute. Euphyllin is composed of 80 per cent theophyllin and 20 per cent ethylenediamine.

I have found theobromin extremely satisfactory and have not observed toxic effects from its prolonged administration. With the use of some of the other members of this group, however, such as theocin, theobromin sodiosalicylate and occasionally euphyllin, quite definite toxic effects manifested by gastric disturbances are at times evident.

Diuretics—In most cases of congestive heart failure sufficient improvement in the circulation occurs following rest in bed, restriction of fluid and the use of digitalis so that the patient is free of excess fluid. In some cases, however, this treatment seems inadequate and the use of supplementary drugs is necessary. The xanthin group, some members of which were considered under the discussion of angina pectoris, at times are instrumental in the production of diuresis but often they are disappointing. The members of this group, theobromin, theophyllin, theocin, theobromin sodiosalicylate and caffeine, are usually given. The usual dosage is 0.3 gm. three or four times daily.

Merbaphen (novasurol) has been a valuable adjunct in the treatment of heart disease, having a very specific diuretic effect and often relieving edema when all other measures fail. It is a dou-

ble salt of sodium mercurichlorophenyl oxyacetate with diethylbarbituric acid and it contains 33.9 per cent of mercury. Its use in cardiac edema is dependent on the fact that sodium chloride and water are quickly excreted and the drug mobilizes water and sodium chloride in the edematous tissues and organs. It has also been shown that merbaphen causes an increase in the excretion of chlorides in urine in normal persons, but that diuresis does not always occur. There is a relative and an absolute increase in the output of sodium in the urine. Consistent chemical changes in the blood have not been demonstrated following diuresis. The action of merbaphen so far as is known at the present time is to cause a definite increase in the excretion of sodium and chlorine in the urine and it has not yet been determined whether this specific action occurs in the kidneys, in the tissues in general, or in both.

Before administering merbaphen I have always first subjected the patient to complete rest in bed, restricted fluids and salt, controlled diet and the administration of digitalis. If benefit is not apparent within a short time, merbaphen is given. In the early period of administration 0.5 c.c. was given intramuscularly as a test of tolerance, but since my experience with the drug has been unusually free from hazard I now give the initial dose of 1.2 c.c. intravenously and often continue it at intervals of four or five days in doses of 2 c.c. The best results with merbaphen have been obtained in the rather advanced cases of congestive heart failure with generalized edema, hydrothorax, ascites, pulmonary edema and distention of the liver. Fluids are restricted to from 800 to 1000 c.c. in twenty-four hours, and the diet is made as nearly salt-free as possible.

The two striking contraindications to the use of merbaphen are glomerulonephritis and enteritis. Often during the course of the administration diarrhea occurs but these symptoms have never been troublesome. Occasionally stomatitis and gingivitis occur, but as a rule they are of short duration.

Ammonium chloride and ammonium nitrate are both satisfactory diuretics and often must be administered before satisfactory results from merbaphen can be secured. In the administration of ammonium chloride two characteristic chemical changes occur in the blood plasma: one in the carbon dioxide combining power and the other in the chlorine content. It has been found that the urine during diuresis always shows the hydrogen-ion concentration to be below 6.0, varying from 5.8 to 4.6, the urine becoming decidedly

more acid in from two to six days after the administration of ammonium chloride.

Ammonium chloride and ammonium nitrate is given by mouth in doses of 6 to 10 gm. daily for periods of from three to eighteen days. It is best given in keratin-coated pellets in 1 gm. units three times daily. If nausea occurs it must be discontinued temporarily. It has been shown that when the alkali reserve of the blood is markedly decreased the drug should be temporarily discontinued until the plasma bicarbonate becomes normal.

Sedatives—One of the most valuable drugs in heart failure is morphine sulphate carefully administered in adequate dosage. Little can be accomplished unless the patient can be induced to rest. Most striking effects for the better sometimes follow a reasonable night's sleep. I do not believe that the continued administration of morphine is advisable, but for the first week or ten days of treatment the use of bromides in 1 gm. doses three or four times daily, or phenobarbital in 0.15 gm. doses given at bedtime may often be beneficial.

Miscellaneous Drugs—In paroxysms of cardiac pain the nitrites, given preferably in the form of nitroglycerin or amyl nitrite, often afford prompt relief. Their action, however, is very evanescent and little, as a rule, can be gained by continuous administration.

Desiccated thyroid extract has a definite place in the treatment of the Stokes-Adams' seizures accompanying complete heart block, and beneficial action occurs by increasing the rate of circulation. This product must be carefully administered and every attempt made to prevent the elevation of the basal metabolic rate beyond the limits of normal.

The use of barium chloride has been recommended in doses of 30 gm. four times daily. It tends to increase cardiac irritability and to prevent the long periods of ventricular asystole. Caution must be used in the administration of barium since all barium salts except barium sulphate are toxic.

In the treatment of cardiovascular syphilis the patient must be carefully managed. One is confronted with two problems, the arrest of the syphilis and the effect of the arrest of the syphilis on the cardiovascular lesion. In many cases, following intensive antisyphilitic treatment, progressive deterioration of the cardiovascular system develops, owing to an increase in the cicatricial contraction of the syphilitic lesion. As will be recalled, syphilis is a productive inflammatory process which heals with the production of con-

siderable fibrosis and the resulting deformity from such healing may irreparably injure the cardiovascular system by the creation of purely mechanical barriers.

Mercury and the iodides should always be given first, as their action is slow and there is, therefore, less tendency to the production of deformity. The arsenical compounds should be used with caution and in smaller doses than are usually given and only after a course of mercury and iodides have been instituted. Bismuth may be substituted for mercury. In all cases specific treatment must be combined with careful and intelligent supervision of the heart and circulatory system.

THE HEART IN ARTERIOSCLEROSIS*

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I. GENERAL SYMPTOMS OF ARTERIOSCLEROSIS

The individual suffering with arteriosclerotic heart disease shows, in addition to the specific heart findings, a number of general symptoms which I shall discuss very briefly.

These general symptoms have a very insidious onset, the patient being aware only of a vague indisposition, the exact nature of which he finds it difficult to define. He notices a loss of ability to concentrate, and finds that mental tasks require undue effort and are followed by a greater fatigue than normal. He notices slight lapses of memory, and occasional difficulty in recalling well-known faces, objects, appointments, etc., while, on the other hand, more remote events are recalled more vividly.

He notices, often, an increased irritability and depression without being able to account for either. His family and friends notice an increasing lack of emotional stability. With these changes in his nervous system there frequently develops vague digestive disturbances, flatulence, constipation, and a lagging appetite. Later, a slight or greater loss of weight may ensue. Occasionally he complains of cramps in his muscles on exercise.

The blood-pressure may or may not be increased. Frequently it is increased during the so-called blood-pressure "crises", which crises are often accompanied by severe headaches, sometimes with cardiac failure or even apoplexy.

There may be some increase of pulse pressure, from a relatively low diastolic reading. Finally, increasing dyspnea on accustomed effort may be noticed, accompanied by faintly heard heart sounds on examination.

II. ESSENTIAL HYPERTENSION

Closely related to the generalized arteriosclerotic changes found in those persons with arteriosclerotic heart disease, is the condition known as essential hypertension which means an elevation of the systolic and diastolic pressure due to no accurately defined cause. My own feeling is, that both the condition of essential hypertension, and early arteriosclerosis are due to a common cause, inasmuch as the chief finding at autopsy of patients with essential hypertension dying from some incidental cause is generalized arteriosclerosis, particularly of the capillaries and smaller blood-vessels. Clinically, the first definite evidence of these arteriosclerotic changes may be found in the fundus of the eye. While essential hypertension may exist without demonstrable arteriosclerotic changes, it is most frequently associated with arteriosclerosis.

The condition of essential hypertension occurs most frequently in the middle decade of life, in, as a rule, robust, well fed individuals. These individuals complain of nervousness, irritability, easy fatigue, morning headaches, as well as slight precordial distress, dyspnea, palpitation, etc. The blood-pressure may be extremely high, particularly the diastolic pressure, with systolic pressures up to 200 mm. Hg. or 250 mm. Hg. or more, and diastolic pressure of 120 mm. Hg. or over. These patients early show hypertrophy of the left side of the heart, the type of heart George Fahr has described as the "hypertensive heart". On auscultation one finds a rather booming or slight unclearness of the first sound at the apex, with an accentuation of or a ringing second sound at the base.

III. ARTERIOSCLEROSIS OF THE HEART

The symptoms of the heart in arteriosclerosis are due, for the most part, to interference with the proper nutrition of the heart muscle from narrowing of the lumen of the coronary arteries from coronary sclerosis. In other words, arteriosclerosis of the heart for all practicable purposes is synonymous with arteriosclerotic changes in the coronary arteries.

In addition to the heart muscle changes due to this coronary sclerosis, one frequently finds chronic valvular disease in these hearts from the same sources.

*Read at the special course in the Diseases of the Heart and Lungs, given by the Iowa Tuberculosis Association and the Iowa Heart Association (under the auspices of the Extension Division and the College of Medicine, University of Iowa), Iowa City, Iowa, June 5, 6, 7, 8, 1928.

The underlying causes for these coronary sclerotic changes may be classified under separate headings as: intoxications and infections; old age; hypertension; inherited factors; typhoid fever; rheumatic infections; scarlet fever; diphtheria; influenza; various foci of infections; gout; diabetes; Bright's disease, and chronic lead poisoning.

In addition to the narrowing of the coronary arteries, fibrosis of the heart muscle is still further increased by the prolonged hypertension from increased peripheral resistance.

One of the most outstanding symptoms of the arteriosclerotic heart is dyspnea, which gradually progresses; which is often nocturnal and paroxysmal, so-called "cardiac asthma"; and which may be accompanied by substernal oppression or pain, particularly when associated with arteriosclerotic or syphilitic aortitis.

In association with dyspnea, these patients often complain of vague precordial distress which may even amount to actual pain from interference with coronary blood supply.

Irregularities of the pulse are frequently found in these patients; the most frequent as well as the least serious are the so-called premature contractions or extrasystoles. However, as the process develops more serious arrhythmias may develop, such as auricular fibrillation and flutter, paroxysmal tachycardia, heart block, alternation of the pulse, etc.

Sudden death, from coronary occlusion, with its train of dramatic symptoms and incidents, often closes the scene.

Mitral and aortic valvular disease may often be demonstrated in those patients spared from the sudden tragedy of coronary occlusion. Congestive heart failure, with dependent edema, fluid in one or more of the serous cavities and recurring attacks of pulmonary edema are found late in the course of the disease.

IV. ARTERIOSCLEROSIS OF THE AORTA

In association with, or independent of, the arteriosclerotic changes of the coronary vessels, aortic arteriosclerosis is a frequent finding at autopsy. In such patients during life it is frequently extremely difficult or impossible to separate those symptoms which are due to involvement of the aorta, and those due to the involvement of the heart alone. The most frequent symptoms suggestive of aortic involvement are extreme dyspnea with aortic dilatation; sub-

sternal oppression; anginoid pains with radiation between the shoulder blades, and paroxysmal nocturnal dyspnea. On auscultation, one frequently finds a systolic murmur to the right of the sternum with radiation to the vessels of the neck, and a diastolic murmur along the left sternal border; marked pulsation of the right subclavian artery above the clavicle; pulsation in the episternal notch; increased area of dullness to the right of the sternum in the first interspace, and dilatation and elongation of the aorta on x-ray examination.

V. TREATMENT

Treatment cannot restore youthful vessels to these middle aged and senile persons. It can only relieve symptoms. It may arrest and retard the progress of the disease, particularly in its early stages.

Therapeutic measures which are suitable and helpful are: the removal of definitely demonstrable foci of infection; nourishing diet for the undernourished; reducing diet for the obese; tea and coffee in moderation; avoidance of alcohol; and restriction of tobacco, etc. Normal bowel function with, if necessary, mild catharsis; regular systematic exercise; reduction of hours of work and the tension of life in general; long and frequent vacations; sojourns in warm climates during the cold winter months are likewise to be advised. Many physicians traditionally prescribe the iodides for long periods of time, and although their value is somewhat questionable, they may be of some use. Recently, the introduction of the use of potassium sulphocyanate has met with endorsement in some quarters.

Specific treatment for the heart depends on the condition of the heart at the time the patient presents himself for examination. Digitalis in the presence of heart failure, nitroglycerin to relieve increased peripheral resistance, angina, cardiac asthma, etc., are helpful. One or other of the purin derivatives may be tried, caffeine, theobromin, diuretin, and recently, euphyllin. Morphin may be necessary.

For the paroxysmal attacks various vasodilators, caffeine, nitroglycerin, and at times chloroform, are helpful. For the nervousness and insomnia bromide and paraldehyde may be used. In all stages of the disease warnings against unusual effort, lifting of heavy objects, straining at stool, chilling, cold baths, etc., should be made. A diet low in meat extractives and high seasonings is helpful.

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UNDULANT (MALTA) FEVER
CLINICAL ASPECTS OF CASES WHICH
HAVE OCCURRED IN IOWA*

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The first case of undulant or Malta fever was recognized in Iowa, in November, 1926, by Dr. Woodward¹ of Mason City, Iowa. This case was reported at the meeting of this Society a year ago. It was assumed that other cases were going unrecognized and the Hygienic Laboratory has been prepared since that time to do agglutination tests. In June, 1927, the technic of the examination was modified to conform with that recommended by the Hygienic Laboratories, Washington, D. C., and during the following three months all specimens found by us to be doubtful or positive were sent to that laboratory. The results differing only slightly in titer at the two laboratories assured us of the reliability of our findings. At the same time, suspecting that an occasional case might be detected, we examined for undulant fever all wet blood specimens sent for Widal tests. After three months, we were impressed with the value of this procedure, and in September began examining also the dried bloods received. The recognition of cases has stimulated interest and more and more blood specimens are being received from patients clinically suspected of having undulant fever. This has led to the diagnosis of a constantly increasing number of cases. It early seemed advisable that a study should be made with the view of determining the source of the infection and its mode of spread. This was made possible through the interest of the State Department of Health and the financial assistance of the United States Public Health Service. While making this study, at the same time clinical data was collected. This paper, therefore, is the result of a broad and hearty cooperation between physicians, hospitals, laboratories and health organizations.

In discussing the clinical aspects of undulant fever, as it has occurred in Iowa, one is at once confronted with a question of the accuracy of diagnosis. A discussion of this may however, be postponed and an arbitrary standard accepted to separate the doubtful cases from those which can be diagnosed with reasonable accuracy. An agglutination of *Br. melitensis* in a titer of 1/80, and clinical symptoms which conform to undulant fever, with, in addition the lack of findings suffi-

cient to establish another diagnosis, was accepted as this arbitrary standard. Though adequate histories have been obtained in most cases still some have not yet been investigated and others have not yet fully recovered. For these reasons an analysis of the cases will be incomplete in some respects. Sufficient information is available, however, to justify the stating of certain observations and conclusions. These may be discussed under the following headings:

Prevalence—Using the standard for diagnosis which I have indicated, up to April 30, 1928, sixty-three cases of undulant fever have been diagnosed in the state. Of these, fifty-five have occurred in the past eight months. This cannot be taken as a true indication of the number of cases which have occurred, since it has so frequently happened that a confirmed diagnosis of one case has been followed by the recognition of other cases in the same vicinity, or the proving of the diagnosis on some perplexing case which may have occurred months before.



FIGURE 1

Distribution of Malta fever cases which have occurred in Iowa

Distribution—Figure 1 shows this at a glance and needs no comment. It is worthy of note that it is recognized that contagious abortion in cattle and hogs, which is believed to be the source of undulant fever in Iowa, is less common in the southern counties than in the middle and northern.

Sex—Forty-seven were males and sixteen were females.

Age—The youngest was seven and the oldest sixty-eight. Most, however, were between the ages of twenty and fifty.

Occupation—This was known in sixty of the cases. It is of interest in that there are twenty-four farmers, five farmers' wives, five packing house workers, two stock buyers, one butter maker and one who assisted in an ice cream plant. The remaining twenty-two cases varied widely in occupation.

*Presented before the Seventy-Seventh Annual Session, Iowa State Medical Society, Cedar Rapids, Iowa, May 9, 10, 11, 1928.

Onset—This differed greatly both in rapidity and the nature of first symptoms. In one case the onset was sudden, while on the other extreme, in three, notable symptoms were present for more than two months before the patient consulted his physician. A history of an illness extending over a period of one week to one month was usually given by the patient when first seen, as a rule during an office call. The most common early symptom was weakness, though loss of appetite, chilliness, general aching, headache, backache, joint pains, abdominal distress and feverishness, were all symptoms of onset. The possibility of undulant fever following other acute conditions or being superimposed on chronic illness must always be kept in mind, since both have been observed.

Symptoms—Undulant fever is equaled by few other conditions in the variability of its symptomatology. Most notable, in many cases, is the almost total lack of symptoms when the patient is at rest. In fifty-two cases an adequate record of symptoms as well as physical findings and laboratory data has been obtained, and I shall discuss these in order as indicated.

Weakness—This is the one constant symptom. It varies greatly in degree but is usually prominent in the clinical picture. It is regularly associated with lassitude.

Feverishness—The fever is frequently out of all proportion to the patient's complaint. Two cases that complained of no feverishness, on the first visit to the physician's office were found to have a temperature of 104° F. This symptom was commonly absent when the thermometer registered 101° to 102° F. In one case, the hot skin was noted by a father sleeping with his son, before the boy appreciated that he had fever. Feverishness is rarely present in the morning but appears in the afternoon and persists until after midnight.

Chilliness and Rigors—Chilliness occurred in about two-thirds and formed one of the prominent symptoms in over one-third of the cases. These sensations appeared irregularly in the afternoon and evening and varied in length from a few minutes to two hours. Even early in the disease these attacks were, in some cases, severe. This point is well illustrated by a physician who had the disease. He stated that about two weeks before he became bed-fast, while giving an anesthetic in the warm operating room, he became so cold that he was compelled to wear his overcoat. In addition to chilliness, true rigors may occur. The latter were present in less than one-third of all the cases but in most of the severe ones.

The rigors are particularly noteworthy since they have led and may lead to erroneous diagnoses, as for example pneumonia or malaria.

Sweating—This was one of the most striking and characteristic features of the disease. When present it was usually profuse. Common descriptions were "The mattress would be wet", "You could wring the water out of my night clothes", or "The sweat would run down my legs". In over two-thirds of the cases this symptom was present. The sweats appeared during the night, characteristically between 2 to 4 a. m. Frequently the sweating occurred daily while in other cases it appeared at irregular intervals.

Pain—As a whole the freedom from pain was remarkable. At the onset, general aching, such as is associated with influenza, was common. Backache, in some cases, was a very prominent and distressing symptom. It was present in half of the cases and was a major symptom in more than 50 per cent of these. It has appeared early, but was usually present only with high fever, but rapidly disappeared with rest in bed. Evening headaches of a moderately severe intensity were noted in the same proportion of cases. Discomfort from a stiff neck was common. Joint pains occurred even in the absence of any evidence of arthritis.

Gastrointestinal symptoms—Loss of appetite was common but not always present and was rarely one of the prominent symptoms. It usually appeared early in the course and frequently disappeared before the termination of the temperature. The common story was that the appetite was lost early but regained while the patient was in bed and replaced by an exceedingly good appetite. Nausea was uncommon and usually slight; very rarely this led to vomiting. Constipation was common while an unexplained diarrhea was not observed.

Nervous symptoms—There was a general tendency for the patient to be apprehensive, and this condition was accentuated by prolonged uncertainty in diagnosis and prognosis. A marked irritability was occasionally noted by the family or attendants and emotional instability was common. Insomnia frequently appeared early and was often difficult to control. In the severe cases delirium and coma were occasionally noted.

Respiratory symptoms—A secondary bronchitis may occur, and symptoms of this in the absence of other findings have led to the diagnosis of primary lung disease.

Cardio-vascular symptoms—Palpitation and rapid pulse were not uncommon. These usually appeared late in the course of the disease.

Genito-urinary symptoms—Painful urination was not common but was met with sufficient frequency, to be worthy of note.

Loss of weight—This has varied from no established loss to fifty pounds. A fifteen pound loss was an average figure for the adult male.

Physical findings—Most perplexing and most frequent was the total absence of any findings which satisfactorily explained the patient's clinical condition. The majority did not look seriously ill and in more than half of the cases no abnormal physical findings were detected. An enlarged spleen, which was relatively firm, was palpated in one-third of the cases. The size varied from just palpable to four cms. below the costal margin. The liver was apparently enlarged in a few cases. Abdominal tenderness of varying degrees was noted. This had no fixed location but was most frequent in the epigastric region though it has been found also in the lower quadrants. Chest examination occasionally revealed the findings of a diffuse bronchitis. In the absence of complications, other systems rarely showed changes dependent on the specific infection.

Temperature—An undulating temperature with intervals of apyrexia was present in less than one-third of the cases. The more usual type was an irregular and intermittent type. Daily remissions were the rule, the temperature frequently being normal in the morning but returning to its peak between 5 p. m. and midnight. In many cases the highest daily temperature only infrequently was above 102° F. Ordinarily the temperature returned to normal by a slow lysis.

Pulse—The pulse curve commonly followed the temperature curve, but in a few cases a very rapid pulse was the most disturbing feature of the disease. The characteristic slow pulse of typhoid was, in no instance, observed.

Laboratory findings—Urine—Pus cells with albumin were noted in less than one-half of the cases. In one casts were observed.

Blood—A definite secondary anemia was the rule. The white cells show changes of much diagnostic value. A leukocytosis was not common, but evidently may occur early in the disease, or with some complications. A mild leukopenia was the usual finding. The lowest count was 2,150. The differentials were important in that they showed a moderate to marked decrease in the polymorphonuclears with a corresponding increase in large mononucleate cells of different types. An average differential count showed about 35 per cent polymorphonuclears, 10 per cent small lymphocytes, and 55 per cent large

mononuclears which may further be classified as large lymphocytes, endothelial leukocytes and pathological lymphocytes. As low as 16 per cent polymorphonuclears with 75 per cent large mononuclears was observed.

Agglutination tests—At the present, reliance should be placed only on the results of an examination of a wet blood specimen. The agglutination test done on the dried blood has been of value in suggesting undulant fever, but to avoid errors, further examinations of the wet blood must be made. The reaction, as in typhoid, was absent in the early stages of the disease. Progressively higher titers have been obtained where repeated examinations were made. In twenty-three cases, titers of 1/1280 or higher were obtained. An average of 2.4 tests per patient, has been made.

Blood cultures—Of five cases studied by the bacteriological department of the College of Medicine, from three the causative organism was isolated.

Complications and Sequelae—A knowledge of these is necessary both as an aid to accurate diagnosis and prognosis. The important ones may be listed as follows:

Orchitis—This was early and severe in one case and has been followed by a persisting induration. In another patient it was late and transient.

Arthritis—This was multiple, shifting, with tenderness and swelling but no redness in three cases, and with marked effusion in one of these. Recovery occurred in two without deformity, while in the third at the time of writing no record of the convalescence was available.

Cardiac—Palpitation and rapid pulse persisted in one case, following the disappearance of all other symptoms.

Mastitis—In one case this occurred. It was not associated with lactation, was bilateral and subsided spontaneously.

Course—The most distressing feature of this disease is its prolonged course. An attempt has been made to measure its duration. The first definite symptoms were accepted as the beginning of the disease and the time when patient was able to do an average day's work without symptoms, was regarded as the termination. In order to determine also the duration of severe symptoms, the period during which the patient was bed-ridden was also recorded. The average total duration was 12.5 weeks; the shortest three weeks, and the longest nine months. The average period in bed was 3.5 weeks, the longest was nine weeks, while seven patients were not sick enough to remain in bed even for one full day,

though the majority of these found it necessary to lie down in the afternoon.

Clinical types—In the literature four clinical types have been described and the variations are so great that such a division seems justifiable. Four cases may be reviewed as illustrative of the different types as indicated.

1. Malignant—C. H., age twenty-seven. Female. Housewife—Sudden onset with weakness and feverishness. Physician called during first day and temperature found to be over 103°. Additional early symptoms were general aching, chilliness, rigors, and anorexia with nausea and vomiting. Condition became progressively worse and after nine days patient was admitted to hospital. The record contains the following admission note, "The high temperature is not characteristic of influenza but the absence of all symptoms and findings of typhoid, makes it the only diagnosis available at this time". Patient was relatively free from discomfort and till late was mentally clear. An extreme hyperpyrexia developed and persisted. The pulse became rapid, delirium and coma developed and patient died three weeks after onset. The physical findings showed nothing of diagnostic value. There was a late leukopenia as was evident from the few white cells in the smears. The differential showed 21 per cent polymorphonuclears and 69 per cent large mononuclears. Three agglutination tests were made, the specimens being taken on about the tenth, fifteenth and nineteenth days of illness. The typhoid reaction was persistently absent. The first test showed no agglutination of the organism of Malta fever. The second was a dry blood specimen and showed clumping in both the 1/40 and 1/80 dilutions. The third examination was on the wet blood and there was complete agglutination in the 1/80 dilution and partial in 1/160.

2. The "Typical Case" with Undulating Temperature—M. C., age thirty-eight. Male. Farmer—Onset insidious. Did not feel well, tired easily and had headache for two months. Became progressively worse. Came to physician's office with temperature of 103.2 and pulse 100. Symptoms were marked weakness, profuse night sweats, rigors, loss of appetite and constipation. Temperature was remitting, being normal to 99.5 in morning and 102° to 103° in evening. Patient was in hospital for ten days and left because he did not feel sick enough to stay. Fever of lesser degree continued for one month. Two relapses occurred after six weeks and four months and lasted two and one weeks respectively. Physical examination was negative except for slight abdominal tenderness. Blood showed 4,000 W.B.C. with 28 per cent polymorphonuclears. Agglutination test was positive in a titer of 1/1280 and continued to be so six weeks after last relapse.

3. Intermittent—W. P., age forty-six. Male. Farmer—Onset slow. Applied to physician because of weakness of two weeks duration. Temperature found to be 99.6. Weakness and feverishness persisted for one month. Patient never was bed-fast

but did light work. Differential showed polymorphonuclears 52.5 per cent, large mononuclears 32 per cent. Complete agglutination in a maximum titer of 1/1280 was obtained.

4. Ambulatory—W. G., age twenty. Male. Student—Onset with transient general aching thought to be influenza. This followed by mild abdominal discomfort. Slight chilliness and weakness noted. Daily routine of work and play not disturbed. Applied for examination only since he wished to take part in competitive athletics. No fever. Spleen was palpable. Polymorphonuclears 37.5 per cent, large mononuclears 43 per cent. Agglutination complete in 1/1280 dilution.

Diagnosis—"Nearly every case of undulant fever has in its early stages been treated for malaria or some pyogenic disease before the correct diagnosis has been made", is an observation of Bassett-Smith.² After emphasizing the difficulties in diagnosis it is stated in the Public Health Reports³ that "The chances are almost negligible for its recognition in countries where its existence is unknown". All writers emphasize the importance of laboratory tests. A quotation from Stitt is illustrative. He says "Once there is a suspicion of Malta fever, one should try to confirm it by more accurate methods of agglutination tests or blood cultures rather than from clinical observation". During April, 1928, ten cases of undulant fever were diagnosed and in two cases only had the condition been suspected clinically. In both of these cases the physician had under his care at the same time, another diagnosed case. In the remaining eight, the disease was detected through the routine laboratory examination for undulant fever of all bloods sent Widal tests. This is mentioned to emphasize the fact that this disease is not yet being considered in differential diagnoses. It is not surprising therefore, that a variety of provisional diagnoses have been made. Typhoid, paratyphoid, influenza, "intestinal flu" and "summer flu" have been common. Additional clinical impressions have been, sepsis from the teeth, malaria, liver abscess, cholecystitis, appendicitis, bronchitis, pneumonia and stomach trouble. It is easy to understand how a prominence of some symptom or physical findings would lead to these diagnoses. One is justified, therefore, in urging that undulant fever be more frequently considered and that reliable diagnostic tests be applied.

To avoid errors, a knowledge of the interpretation of laboratory findings is essential. The agglutination test is not absolute and infallible but it must be accepted as a part, though a most important part, of the clinical evidence. The higher the agglutination titer the more weight

this evidence may be given. A diagnosis should rarely be made with a titer of less than 1/80. Positive tests of 1/20 and 1/40 should be viewed with suspicion and the test repeated. It should not be forgotten that previous infections may leave agglutinins which persist in decreasing concentrations, probably for relatively long periods. The possibility of Malta fever being secondary only must be remembered, as evidently was observed in one obscure carcinoma case. Here I was led astray by giving too much weight to a positive agglutination test with a low titer, and interpreted the weakness, anemia and enlarged liver as evidence of undulant fever.

In diagnosing, as a whole, the group of cases presented, the evidence is conclusive and satisfying, though the possibility of error in a small percentage of the individual cases is still recognized.

Prognosis—Though two cases have ended fatally, the prognosis as to life is usually good. Statements as to the probable duration of illness must however, be guarded. The agglutination test here again may be of value since it has been stated that a high and sustained titer allows a good prognosis. We have had little opportunity to check the accuracy of this observation.

Features demanding further study—Clinical characteristics—Such a study as has been made up to the present indicates only the lines along which further progress might be made. In all probability, the typhoid type of infection has been recognized much more commonly than has any other. It is possible, therefore, that there have been many cases hidden under other clinical diagnoses. When these are recognized, our conception of the clinical picture and course of this infection may be considerably modified. It is, then, highly important that all cases be carefully studied, and followed, and the record made available for comparison with other cases. It is suggested that the same, though in some respects improved, type of cooperation between practitioners, hospitals, laboratories and departments of health be continued. If this is done it is reasonable to expect that the coming year will add to our knowledge of undulant fever, much more than has been added in the past year.

Prevalence—One can have no opinion at the present time of the true prevalence of this infection in the state. "I have been impressed by the number of these cases that one can find if one looks for them", writes Dr. Campbell, of Sioux Rapids, Iowa, in a personal communication of recent date. He further recalls, "The man G. W., as you know, is my fourth since November and the third this year". Only through clin-

ically looking for these cases and the use of diagnostic laboratory examinations, may accurate information be accumulated. It is, therefore, suggested and recommended that the services of the laboratory be more frequently used in the study of obscure fevers, and atypical, often mild illnesses. It is particularly urged that final diagnoses of "intestinal flu", "summer flu", "grippe" influenza (when sporadic), malaria, mild typhoid or paratyphoid, be reserved until blood studies have been made for undulant fever. Wet blood specimens may be sent to the state laboratory in the Wassermann containers, but the report card must be plainly changed, indicating the test desired.

Epidemiology—Physicians share with the health authorities the ideal of disease prevention. For this to be realized in this infection a very accurate knowledge of its source must be obtained. At the best it is feared that its control will necessitate either economic loss by stock raisers or a reimbursement by the state but needless expenditures may be prevented if a detailed knowledge of the reservoirs of infection is acquired.

Laboratory problems—Several lines of study are suggested but in many little can be done without the interest of the practitioners. Information should be obtained regarding the rate of disappearance of the agglutinins following convalescence. It is therefore, recommended that blood specimens be collected at monthly periods during convalescence, and every three months following convalescence, until the agglutinins have disappeared. Many physicians have been glad to obtain specimens with no expense to the patient and it is suspected that frequently this may be necessary, particularly during convalescence. Following even a few cases in this manner will add valuable information. Blood studies, particularly of the white cells are important, and repeated differential counts should be made. I shall be glad to continue making counts on diagnosed cases, and suggest that smears be carefully taken at regular intervals both during the course of the disease and in convalescence. Bacteriological studies are urgently needed but cultures are of little value unless the patient is being cared for where a laboratory is near at hand. It may here be pointed out that the organisms grow very slowly, the cultures must be kept under observation for seven days or more. No careful pathological studies in this infection have been made, and these would be of great value. Additional fatalities are to be expected and when these occur post mortem examinations should be

insistently requested. To make the study of greatest value, the assistance of a well organized pathological laboratory is needed, and I am permitted to assure the practitioners that the service of the pathology department of the Medical College is available for such studies.

Therapy—There is at present no specific treatment of proven value. Many methods have been recommended and more will be advocated but all should be critically observed.

The effectiveness of any new treatment should be determined not only by clinical observations but by bacteriological, serological, and blood examinations. Such studies naturally can best be made in the larger hospitals. In the University Hospital a new and promising treatment is being tested, but no conclusions can be made since clinical material has been scarce. May I suggest that, by directing a patient to a hospital where studies in therapy are being made, the time may be brought nearer when a specific treatment of proven value will be available for general use?

Nomenclature—Undulant fever and Malta fever are two names applied to this one disease. It is desirable that one be adopted, and the former, undulant fever, is being selected by common usage.

In conclusion, I wish to express personal appreciation for the generous interest and cooperation which has, not only made this investigation a pleasure, but has in large measure given it the value which it may have.

REFERENCES

1. Jour. Iowa State Med. Soc., v. xvii, p. 312, Sept., 1927.
2. Jour. Tr. Med., v. xxvi, p. 55, Feb. 15, 1923.
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Discussion

Dr. Henry R. Pascoe, Carroll—At the State meeting at Council Bluffs a year ago, in his discussion of a paper on undulant fever. Dr. Hardy made the statement that within a year from that time we would have collected a great amount of interesting information regarding this disease. The paper to which we have just listened is proof of his success as a prophet. It has indeed been interesting to listen to this description of a disease which, until within the past year, most of us at least had considered as being entirely outside our sphere of activity; in fact had probably never considered at all except perhaps as a scourge upon a far away island which we never expected to see. But now it has developed into a problem of great importance. In a paper prepared by Dr. A. V. Moore, dean of the College of Veterinary Medicine at Cornell University, the statement is made that the bacillus abortus appears in the milk of 60 per cent of infected cows and that 30 per cent of the dairy herds examined by the veterinary department of that institution were infected with the

disease. The statement also is made, on good authority, that contagious abortion in cattle is present in every county in the state of Iowa and probably in every township. Complete knowledge as to the ways in which undulant fever is transmitted from infected animals to man is not at hand, but from Dr. Hardy's analysis it is the people associated with farm live stock in one capacity or another who are most often affected with the disease. However, if the germs are carried in the milk of 60 per cent of infected cows, and we are told by laboratory workers that they are most numerous in the butter fat, to say nothing of the bacilli that are carried in the barnyard dust, it requires no great stretch of the imagination to see how undulant fever presents a problem in the sanitary control of milk comparable to that of tuberculosis. But we have just begun to recognize the disease. It is no doubt being frequently passed up as typhoid, suspected tuberculosis, a malaria out of its latitude or some other condition. The number of cases diagnosed or in which the diagnosis has been confirmed by the state laboratory within the past six months since they have begun really to look for the disease, is evidence that it occurs with much greater frequency than is generally suspected, and in all suspicious cases resort to the state laboratory is strongly to be urged.

Dr. Walter L. Bierring, Des Moines—It is interesting to know that a new fever has come into our midst. It is but a few months since we were told that the number of recognized cases of undulant fever in Iowa was seventeen, yet now it has risen to sixty-three, and no doubt with this comprehensive presentation of the symptom complex we will be able to detect these cases much more frequently. Undulant fever presents a number of interesting features. It resembles typhoid, and again malaria. Although malaria is becoming rather rare, the characteristic onset of chills and profuse perspiration, find their counterpart in undulant fever. The enlarged spleen, continued fever from a few weeks to six months, and marked emaciation offers considerable difficulty in differentiating the disease from typhoid infection. Fortunately the positive serum agglutination test with *Br. melitensis* (variety abortus) offers a definite diagnostic aid in distinguishing undulant fever from related febrile conditions. Although undulant fever has a low rate of mortality its long febrile course and slow convalescence makes it one of the most distressing diseases recognized within recent years. The State Society is to be congratulated on this presentation, and our commonwealth is indeed fortunate in having Doctor Hardy in charge of the State Hygienic Laboratory, and on the effective manner in which he is investigating this important problem.

Dr. Chas. W. Ellyson, Waterloo—We appreciate the service Dr. Hardy has rendered to all of us in the way of laboratory work bearing on this particular disease. I believe he was referring to me when he said one case brought on another. I had a case

which we could not diagnose, and Dr. Hardy identified it as undulant fever. The man was an employe of a packing firm, and I later picked up three other suspects in the same concern, one positive, the others still gradually increasing the agglutination for undulant fever, although Dr. Hardy has not diagnosed one of these as positive. Last night, after I had taken a specimen in the case of the young man, he asked, "What can I do?—this illness has been going along for nearly a year". When these patients ask us what they shall do we have to make some kind of an intelligent reply, and if we keep them within our hands and from going first to one place and then to another we have to promise them some line of treatment or make a diagnosis which will assure them of proper handling of the case. I am satisfied too many of us do not appreciate the work Dr. Hardy is doing in helping us to diagnose a condition which is very difficult for most of us to identify.

Dr. Hardy (closing)—I wish to thank those who have contributed to this discussion. I have little to add but desire again to stress the variability of the clinical picture. The description which Dr. Bierring has given is but one of the types which has occurred. Of Dr. Campbell's four cases the first to be recognized was relatively mild, and of the other three, two also were of the same type. Do not think of undulant fever, therefore, only when you have a severe or perplexing case. The infection clinically may be quite mild. It has been both interesting and distressing to note how these cases have gone from physician to physician, or have sought aid from the non-medical cults. The reason that this occurred, evidently, was because there was an obvious uncertainty in diagnosis. Not alone may you save your patients much anxiety and apprehension, but you may also keep their confidence if you will think of undulant fever and obtain an established diagnosis.

INFECTIOUS MONONUCLEOSIS CO-EXISTING WITH MASTOIDITIS*

A. J. JOYNT, M.D., Waterloo

For the last three years general medical literature has been replete with contributions to infectious mononucleosis but it has not been mentioned in the journals devoted to otolaryngology. While one writer mentions otitis media as a complication, I am unable to find a reported mastoiditis complicated by infectious mononucleosis.

I will not endeavor to completely review the literature on this disease but will note only the salient points in order that our memory may be refreshed and the diagnosis in this particular case be justified.

In 1889, Pfeiffer described a disease which he

called Druesen fever, stating that it was characterized by slight redness of the throat, high fever, swelling and tenderness of the lymph glands of the neck, particularly those behind the sterno-cleido-mastoid muscles. Eighteen years later, Turk described the blood findings in this disease, and in 1920, Sprunt and Evans, due to the abundance of mononuclear leukocytes found in the blood, called it infectious mononucleosis. Since that time there has been considerable written on this symptom complex, under the names of glandular fever, infectious mononucleosis and acute lymphatic leukemia with recovery; the last of course being a misnomer. All of these contributions added their share to the knowledge and now we have a generally accepted entity known as infectious mononucleosis. The existence of this as an entity has been questioned and contentions made that it was a reaction to an infection peculiar to the host. This has recently been disproven by Sprunt and Evans.

Infectious mononucleosis or glandular fever is an acute infectious disease, characterized by an enlargement of the lymph nodes, angina, fever and a lymphocytosis out of proportion to the leukocytosis, if the latter is present at all.

This disease is usually sporadic but a few small epidemics have been reported, ninety-six cases being the largest number that I was able to find. Though considerable study has been done on this malady the last three years, uniform conclusions have not been reached as to its etiology, other than that it is infectious. Streptococcus has been accused as a cause but has not been proven. Vincent's fusiform bacillus and spirochæta denticola have also been suggested as a cause, due to their frequent presence in several of the epidemics. Bacillus influenza has also been isolated in several cases. Whether it is due to a specific germ or not, it is probably due to an upper respiratory infection, as all epidemics occurred during the months in which upper respiratory infections are most common, namely, September to June, and most of the reported cases were preceded by such an infection. Though it may exist elsewhere, all reported epidemics have been in the temperate zones, North America, British Isles, Europe and Australia. It is more often found in the young, seldom after forty and is more common in males.

The onset is usually gradual with the prodromal symptoms of a general infection, though it may be ushered in with a chill, followed by a sharp rise in temperature. Most of the reported cases have had sore throats, headaches, swollen and tender glands, coriza and a "grippy" feeling,

*Presented before the Seventy-Seventh Annual Session, Iowa State Medical Society, Cedar Rapids, Iowa, May 9, 10, 11, 1928, Section Ophthalmology, Otology and Rhino-Laryngology.

while a few had a cough. Of the less frequent symptoms, abdominal pain with nausea and vomiting have been found. The temperature often runs a septic course, varying from 99 to 105, though it may be more or less steady and not go higher than 102. The acute disease usually terminates within a week or two, but a few cases have carried the blood signs and enlarged glands for months.

The throat is inflamed and often presents ulcers or membranes, in a goodly number of which Vincent's organisms have been found. From the variety of observations reported there seems to be nothing characteristic about the inflammations of the throat.

The lymph glands, especially those about the neck, are enlarged and tender. To a lesser degree the same is true of those of the groin and axilla. The spleen is usually enlarged and often palpable. The blood picture is the most constant and characteristic of all signs and consists of an increase in the number of mononuclear leukocytes. The white count is only slightly increased, ranging from nine to thirty thousand but a few cases have been reported where it has been much higher; one as high as eighty thousand. There is considerable diversity of opinion as to the classification of the white cells. They are not typical normal lymphocytes but the differentiation is highly technical and not practical in a clinical paper. There is often a slight anemia with bizarre red corpuscles and practically a normal color index.

The diagnosis is not difficult if the examination is complete, but without a blood count it is impossible. It must be differentiated from acute lymphatic leukemia, which is marked by an extremely high white count. Hodgkin's disease must also be considered but in this the anemia is more marked and the lymphocytosis is rare, the disease more chronic and the gland enlargement more extreme.

The treatment of infectious mononucleosis is practically nil, the prognosis is very good, though a few deaths have been reported.

The case I wish to report is that of a little girl, age five, who came to me on August 7, 1927, with the following history:

About a month ago both ears began to ache and continued to do so for a week, when they began to discharge. For the last week they have been aching at night sufficiently to disturb her rest. Two days ago a swelling appeared, above and back of each ear and the discharge from the ears lessened.

Examination revealed a sick girl with marked

tender swelling above and back of each ear; a small round perforation in each drum with only a slight discharge. The temperature was 99.4, pulse 90, blood count shown in table. Nose was quite normal, though adenoids present; had large tonsils though not acutely inflamed. The radiologist reported both mastoids broken down. Obviously the diagnosis of acute double mastoiditis was made.

On the same day both mastoids were exenterated; all cells were found destroyed; the right sinus was exposed for three-eighths of an inch but did not show any pathology; cultures from mastoids were gram positive diplococci.

She felt much better the following morning and seemed to improve daily for the first five days, her highest temperature being 101 and requiring no sedatives to rest at night. On the afternoon of the fifth day she had a chill and her temperature rose to 103. I saw her about an hour later, at which time she complained of her neck and throat. The throat was generally inflamed, but the inflammation was not confined to the tonsils and both sides of the neck were tender but the glands were not palpable. The blood count at this time showed 97 per cent mononuclear cells and 3 per cent polynuclear cells with a white count of 8,750. Five cc. of boiled milk was given deeply in the buttock, no reaction following. The next morning the temperature was down to 100; no change in throat; neck still tender and glands palpable. The glands of the groin were also tender and palpable. The spleen was not enlarged. The blood at this time showed 92 per cent mononuclears and 5 per cent polynuclears.

From this day the convalescence seemed to be uneventful. The discharge from the canals disappeared and that of the wounds lessened, the blood gradually approached normal. She was discharged from the hospital on the twelfth day after her operation and from treatment on the twenty-first day, with both mastoids healed, per-

TABLE OF BLOOD COUNT

Aug., 1927	7	12	13	15	17
HG.	55%	-----	40%	44%	-----
C.I.	.9+	-----	.9+	.6+	-----
Eryth.	3,080,000	-----	2,460,000	3,300,000	-----
Leuko.	12,900	8,750	8,700	11,000	17,800
S.L.	22%	80%	54%	30%	22%
L.L.	8%	17%	38%	32%	15%
L.M.	-----	-----	-----	1%	-----
Endo.	-----	-----	-----	1%	1%
Poly.	68%	3%	5%	36%	62%
Eosin.	-----	-----	2%	-----	-----
Baso.	1%	-----	-----	-----	-----

forations in the drums closed and no glands palpable. She felt well and had gained several pounds. A recent report indicates perfect health ever since.

There are probably many of these cases overlooked but when one encounters such, complicating a mastoid, and has the fear of its being a more common complication he will go into it more deeply, discover the blood derangement and consequently rest more easily.

Either of these conditions, namely, mastoiditis or infectious mononucleosis, existing alone, should cause no particular worry, since the treatment of mastoiditis is standardized and the prognosis of infectious mononucleosis is good. However, when one has a patient already taxed to the utmost with a mastoiditis and then has engrafted upon this, an infectious mononucleosis, giving a blood picture that seems to be without resistance, you are consequently more anxious as to the outcome. With the case reported here, the infectious mononucleosis seemed to have no influence whatever, as recovery was uneventful.

The treatment of infectious mononucleosis as mentioned before is practically nil and rational treatment will probably remain nil until more is learned of this disease. In my case sterile milk was given with the idea of its raising the polymorphonuclear count, as these are supposed to be infection resisting cells, but since there was no reaction following the milk injection I doubt very much if it had anything to do with the increase of polys on the following day.

Discussion

F. F. Agnew, M.D., Independence—It seems to me that the discussion here evolves around the question of diagnosis and whether or not the case in question was really one of infectious mononucleosis. As students, we older men were taught glandular fever and probably most of us have seen in practice cases which we chose to diagnose as such. In those days blood work did not mean what it does today, consequently we were taught little or none of this important aid in diagnosis. During the past few years, much has been written in the general medical journals on the subject of mononucleosis and much valuable information is to be obtained on the subject from them, but none in our special journals, the reason being patent. Some of the best articles to be found on this subject are those published by Downey, also Baldrige, Rohner and Hansmann, in the *Archives of Internal Medicine*, and those of Cady, Cabot and Longcope in the *American Journal of Medical Sciences*. Lymphocytosis occurs in so many different conditions that one must be careful in making a diagnosis. For instance, it is found in tuberculosis, streptococcic sore throat, cervical adenitis,

pneumonia, scarlet fever, erysipelas, meningitis, malaria and in several other common diseases. However, one author makes the statement that a certain set of symptoms warrants a diagnosis. Quoting him (Downey), "Certain constant features found in the cases described are; the occurrence in young adults of an acute tonsillitis or pharyngitis with systemic reaction, absence of anemia, enlargement of the lymphatic glands and frequently of the spleen, lymphocytosis and a comparatively rapid recovery warrants the diagnosis of infectious lymphocytosis." Blood workers find that lymphocytosis occurs quite commonly in children up to the age of puberty, another reason for using caution in making such a diagnosis. The study of a considerable number of blood charts shows us that more or less constant changes occur, such as in the beginning of the disease, a leucocytosis with a high polymorphonuclear count. As the condition progresses, the polymorphonuclears decrease and the lymphocytes increase until their normal percentage is reversed, at the same time the white count remaining only moderately high or normal. The chart shown by Dr. Joynt corresponds closely to those studied in all respects so that with the history given and the blood findings, I believe he is warranted in making a positive diagnosis of infectious lymphocytosis which is only to be differentiated from glandular fever by the keenest blood workers or experts, if at all, the terms being used synonymously by most writers. The lesson to be learned from this paper is one of importance, namely, in case of an onset such as the doctor described, no matter what our surgical condition may be, time enough should be taken to well assure ourselves of the complications present before we proceed with any radical treatment.

George Light, M.D., Iowa City—About seventeen cases of infectious mononucleosis were seen this past spring. Most of these presented a marked pharyngitis. They were febrile, but the adenitis was not marked. The term glandular fever is somewhat misleading. The diagnosis was made from the blood picture. Tonsillectomies were done on many of these cases as soon as they were afebrile, no complications developed. None of these cases of infectious mononucleosis were associated with middle ear disease or mastoiditis. The case discussed was possibly just a coincidence. I do not believe that infectious mononucleosis has any bearing on the etiology of mastoiditis.

Dr. Joynt (closing)—I do not wish to pose as an authority on infectious mononucleosis, but was caught with this case rather unguarded and am presenting it, thinking that maybe some day some one else may be caught the same way. When a mastoid has been operated and the sinus exposed and your patient has a chill followed by a sudden rise in temperature, one is usually suspicious of a sinus thrombosis. Dr. Agnew in his discussion makes the point that this case may have been one of glandular fever. In answer to this I would say that glandular fever

and infectious mononucleosis are considered by many men to be synonymous. Glandular fever was first worked out by Pfeiffer, but he made no report of the blood findings. Several years later, Turk worked out the blood findings in possibly the same disease. I have tried to differentiate infectious mononucleosis from acute lymphatic leukemia, which is marked by an extremely high white count, often running as high as 500,000. The proportion of the count is very much like that of infectious mononucleosis. In lymphatic leukemia, the glandular enlargement is usually more evident.

CLINIC*

GEORGE B. EUSTERMAN, M.D., Mayo Clinic,
Rochester, Minn.

CASE No. 1. Presented by Dr. Harry A. Collins, Des Moines.

History, read by Dr. J. S. Weingart, Des Moines:

P. F., age 50, female. Admitted to hospital January 18, 1927, with complaints of pain in epigastrium, loss of weight, weakness. Rheumatic pains in hip and ankle during present illness.

Marital History: First husband dead; second husband treated for lues. Patient has taken venereal treatments since 1924.

Clinical History: Patient first began to notice pain in epigastrium on January 1, 1924, which was of a sharp nature beginning in the epigastrium and radiating to the left side and along the lower border of the left lower ribs, rather severe at times. However, she recovered from this first attack and felt fairly well until April, 1925, when a similar attack occurred with greater intensity of the pain which was worse at night and occurred ten to fifteen minutes after taking food. Soda relieved her some but not entirely, food aggravated the pain on all occasions; no vomiting. In October, 1926, patient vomited a cupful of brownish watery liquid. Also has passed on several occasions black stools. She has been weaker after each attack of pain and vomiting, and has been progressively losing weight. On January 15, 1926, had a severe vomiting spell in which two cupfuls of bright clotted blood were vomited for which reason she was rushed to the hospital, having had a more or less constant pain in epigastrium since the onset. Some lower back pain.

Examination at that time revealed a very anemic patient, with positive Wassermann;

urine negative; R. B. C. 1,310,000; leucocytes 15,400; hemoglobin 20%; poly. 81%. Mass in epigastrium more to the left, round, smooth and slightly tender. Gastric analysis: Amount 18 c.c., total 34; free 18; blood a trace. No blood in feces. X-ray report - cap (duodenal) not visualized, probably duodenal ulcer. She was given two transfusions and treated for lues. She gained in weight and strength slowly, but stomach symptoms of distress 15 minutes p. c. persisted. In hospital for four months.

She was admitted to the hospital again August 24, 1927, complaining of pain in epigastrium and weakness. Patient states that she had been feeling poorly several days previous to admission but had not vomited any more bright blood but on several occasions she had vomited brown material; states that at present her pain comes on fifteen minutes after eating, worse at night and not relieved by soda as much as previously. Pain did not radiate. Has passed tarry stools on few occasions before admission. Bowels have been constipated. Weakness and slight loss of weight. Has almost persistent headaches and dizziness with some shortness of breath. While at home had considerable stomach distress. Patient otherwise as previously.

Findings on Examination: Lemon yellow colored, anemic female in bed. Pupils equal, round, and react to light and accommodation.

Heart: Systolic murmur at mitral area heard and transmitted to the second right interspace over the aorta. On percussion the heart is enlarged to left and downward. Visible pulsations in the carotids. Aortic sounds are rough; diastolic murmur at aortic valve; presystolic at aorta; B. P. 120-55; no thrill; to and fro murmur over femoral artery; capillary pulse; pulse full, rate 85-100.

Abdomen: Not rigid, slightly tender in epigastrium, no masses; spleen not enlarged.

Reflexes: Active.

Skin: Large healed scars both tibia.

Urinalysis, 8-23-27; color, straw; appearance, clear; reaction, acid; Sp. G. 1018; no albumin or sugar; pus cells, few.

Blood Count, 8-23-27: Red cells, 1,820,000; white, 5,600; H. B. 40%; polys, 85; L. M., 15. No abnormal reds.

Blood Count, 9-10-27: Reds, 1,800,000; H. B., 45%.

Patient was transfused 9-12-27. Course since admission has been practically the same as when here formerly. Has marked secondary anemia; skin is of a yellow tint, and has quite a definite heart lesion apparently with fairly good compen-

*Clinical address given at 40th annual meeting of the Medical Society of the Missouri Valley, Des Moines, Iowa, September 14, 15, 16, 1927.

sation. Has dizzy spells and persistent headache. 9-10-27 developed a severe diarrhea; stools are of a greenish watery nature; no bright blood having passed. Temperature maximum has been 99.6; minimum 98.4; pulse rate 100 to 88.

X-ray examination revealed fairly large prepyloric ulcer on posterior wall, no retention.

Gastric Analysis: Total, 88; free acid, 48.

Blood Count, 9-14-27: Red cells, 1,650,000; leuc. 11,400; H. B. 50%; polys. 80%; lymph. 16; S. lymph. 4.

Dr. Eusterman: I am glad to have had opportunity to see this patient for just a few moments at the hospital, as she presents some interesting angles both to the internist and the gastro-enterologist. In the first place, the positive Wassermann and the evidence of lues in the husband of the patient brings up the whole question of gastric syphilis, to which I have paid more attention than to any other field of gastro-enterology; and then the severe anemia present brings up the question of differential diagnosis not only as regards intrinsic gastric lesions, but as to other conditions which produce severe anemia. The first thing that impressed me clinically was the severe anemic condition which offhand has some of the earmarks of pernicious anemia. Pernicious anemia is one of the things that you frequently will have to differentiate from gastric lesions, and curiously enough, there are two gastric lesions which will mimic pernicious anemia; one is diffuse carcinoma of the stomach, particularly the soft oozing type, and the other is benign tumor of the stomach. In the last few years we have been awakened to the enormous possibility of bleeding benign tumors, particularly hemangioma, of the stomach, mimicking pernicious anemia. We now have four or five cases in which the blood count is indistinguishable from that found in pernicious anemia. This woman does not have glossitis, dysesthesias of the extremities, or other evidence of subacute combined sclerosis. She has the pallor indicative of severe secondary anemia, and we feel we have sufficient other evidence to exclude pernicious anemia in spite of her appearance.

We sometimes see anemia in advancedluetics, especially in females. The chances are that in this particular case lues plays no role, and the reason is this: She apparently contracted the infection from her second husband, whom she married in 1918. Her first husband was healthy and she had a healthy child from that union. So apparently she has had her infection since 1918 and she has received pretty good treatment for it.

A second point in this case is the rather typical history of a gastric ulcer. She has had pain, and her pain had a food sequence; she has had hemorrhage and night pain, and the fact that pain came soon after meals and had radiated to the left made one feel that if a lesion was present it was in the stomach. Also pain within one-half to one hour after meals with radiation to the left, has the clinical ear-mark of gastric rather than of duodenal ulcer. Why do I say that this lesion is not luetic in its etiology, assuming she has a lesion of the stomach? In the first place visceral syphilis usually obtains on an average of twelve to fourteen years after the initial infection, and usually in people who have not been treated. Longcope some years ago showed that syphilis of the cardiovascular system begins about the same period after onset of the infection. In the second place, apparently antisyphilitic treatment has had no effect upon the lesion, and in my experience the symptomatic response to antisyphilitic treatment in these cases is remarkably prompt even though there may not be any structural change in the lesion itself. The functional response, that is symptomatic relief, is prompt. Another point is that about 90 per cent of syphilitic lesions of the stomach are associated with anacidity.

To sum up, we are dealing with a very anemic woman, one who shows a gastric lesion independently of her luetic history. That lesion may be benign or it may be malignant; my feeling is that it is benign. She has had symptoms for four years, and she has had antisyphilitic treatment. This treatment has not influenced her gastric status.

Dr. Collins: This case is most interesting from the standpoint of differential diagnosis. The clinical history, physical examination and laboratory findings made us consider one of the following conditions as the cause of the patient's symptoms: Gastric syphilis, pernicious anemia, carcinoma of the stomach, bleeding peptic ulcer, or benign tumor of the stomach.

Inasmuch as the patient did not respond to antiluetic treatment, and in the absence of the rather characteristic funnel-shaped deformity of the stomach on roentgenologic examination, we felt that we could safely rule out gastric syphilis. The blood picture was not that of a pernicious anemia and free hydrochloric acid was present in all gastric analyses. Carcinoma of the stomach, with its most bizarre symptoms, was ruled out by fluoroscopic examination. Benign tumor of the stomach, which frequently bleeds slowly over a long period of time, causes varying degrees of secondary anemia and sometimes

presents a picture which has all of the earmarks of pernicious anemia. Roentgenologically, these tumors present a central filling defect which is surrounded by normal stomach. There was no evidence of such a defect in this case.

We made a positive diagnosis of gastric ulcer in this case by means of fluoroscopic examination. The lesion was located on the posterior wall about three centimeters from the pylorus on the lesser curvature. Posterior wall lesions of the stomach are in most instances revealed only when the examiner approximates the anterior and posterior wall. By so doing he is able to iron out all of the barium except that which is found in the ulcer crater. Plates alone would not reveal such a lesion. There are no distinguishing roentgenologic findings between benign and malignant gastric ulcers.

Dr. Eusterman: Dr. Collins is to be complimented. That is the most difficult feat—to visualize a posterior wall lesion. The carcinomata that our x-ray men usually miss are those high on the posterior wall. Screening will best reveal the defect made by a posterior wall lesion. If this patient gives evidence of a lesion or palpable mass during one attack, it might have been inflammatory.

On examining this patient, on account of her appearance and age the first thing I did was to look for metastasis. If she had an epigastric mass, we have to remember that nearly all epigastric or gastric tumors are malignant. Only a small percentage of them are inflammatory. If you have a case of tumor, especially non-sensitive, coupled with a story of gastric malfunction, exclude cancer before you exclude anything else. She has no gastric mass. I examined her for supraclavicular nodes. Curiously enough, some of the best men engaged in this work have very seldom met with those supraclavicular or rectal implants and every time I see one I have every man in the section feel it because that is the commonest clinical sign of metastasis, and when you get that do not worry about how much good an operation will do. And, of course, we have involvement of the peritoneum, the red and indurated navel which means extension to the suspensory ligament and all are clinical signs of inoperability.

You may in this film see here that little crater containing barium which persists after all the other barium is pushed away from it.

Therefore, summarizing, we have here a patient who is very anemic, probably too anemic for the amount of blood loss, in which lues may

play a role, apparently not nephritic; she may persist in losing a little blood. If on a control diet, with persistence of occult blood in the stool—carcinoma. Persistence of occult blood in the stool is occasionally one of the best evidences of the lesion and may be the most reliable sign of all. I think the point in the history was well taken as regards gastric lesions: The earlier onset of pain after feeding, radiation to the left, hematemesis predominating over melena. Half of the cases of gastric ulcer have the same symptomatology that duodenal ulcer cases have, the other half have the symptoms earlier than do the average duodenal ulcer cases. And this woman is an example of a case in which the symptomatology will help in the diagnosis. It points to a gastric rather than to a duodenal lesion, as regards location.

Quite often cases of gastric syphilis are reported in patients who have systemic gastric syphilis and have carcinoma also. When we consider the high incidence of syphilis in the general population, about 10 per cent, it may be seen that every now and then we will get a coincidence of both conditions. So do not make the mistake of calling that particular case a syphilitic lesion unless you have other criteria. The criterion of gastric syphilis is a filling defect without a palpable mass. The patient is not sick in proportion to the amount of defect; he usually is not inclined to have retention, and he has a positive Wassermann and other evidence of syphilis and he usually has anacidity; also these patients respond promptly to antisyphilitic treatment. Of course, in questionable cases resection and microscopic examination are advisable. But remember that gastric syphilitis is a rare finding. (Rate.)

(Note on above case, dated Jan. 3, 1928, by Dr. Collins): This patient developed cellulitis of the face and died a short time ago. Post-mortem revealed a large bleeding gastric ulcer on the lesser curvature of the stomach, about three centimeters from the pylorus. Pathological examination of the ulcer revealed no evidence of malignancy.

CASE No. 2. Presented by Dr. J. T. Strawn, Des Moines.

History, read by Dr. G. R. Johnson:

Patient male, age 72, retired farmer, came in with complaint of being tired all of the time, trouble with gas, and constipation. The history brought out that he began at 23 or 24 years of age to have epigastric gnawing pains that would come on two to three hours after eating or in the early part of the night and would be relieved

by eating or drinking. The trouble would last a day or many successive days and be absent for intervals as long as two years. Some distress at present similar to that of the past, but not in entrance complaint. Gastric analysis: Free Hcl none, total 30. Blood: Hemoglobin 75%, red cells 5,400,000, white cells 9,500. X-ray of the stomach shows one-fourth retention, filling defect at the pylorus.

Diagnosis: Scirrhus carcinoma of pylorus.

Dr. Eusterman: To look at this patient and in examining him we find nothing unusual. This is of interest because there is one other feature of his case I want briefly to discuss. The first thing that impressed me was not the patient himself, but the way his history has been gathered. I am convinced that one of the most fundamental things in medical diagnosis is the writing of a good case history, and this is the thing that is most difficult to get over to our assistants. They are more and more prone to abbreviate the case history. The laboratory is spoiling the future good doctor. I say that with a great deal of conviction, not because I had to start in with my work before we had the x-ray for use in our diagnostic problems, but even today and in the hands of the most astute roentgenologist mistakes will happen, and we have taken the same position the late Dr. Carman always took: where the clinical evidence is contrary to the laboratory evidence, reject the laboratory evidence until you have indubitable proof that it is correct. Time and again we have case reports come to us of inoperable carcinoma or peptic ulcer, not upheld by the history and clinical picture. Then again, the roentgenologist will say he has not found the lesion, contrariwise we will find a lesion. In other words, when, in team-work, the x-ray evidence does not fit in with clinical and other laboratory evidence, make the roentgenologist show where you are wrong and in that way a great deal of embarrassment is avoided. A few days ago we had three x-ray examinations of a young man, with the return of a flat, out-and-out diagnosis each time of inoperable carcinoma of the stomach, and clinically we found no evidence of carcinoma of the stomach. When he was finally operated there was not a thing in the stomach. The young man was very nervous, he had experienced the shock of having his best girl "give him the hat". The spasm was even evident at the operating-table, and there was no other cause for reflex spasm. I mention this case simply for the purpose of reminding ourselves that the old-school physician is not going to be fooled, and the big problem today in educating our young men is so to train

them that they will not attempt to make short cuts which will often lead them to disaster.

The interesting point about this patient is that Dr. Strawn developed a very logical background in the case. The background is characteristically ulcer, and in the light of the transition that has taken place—a little more continuous, a little less relief, loss of weight and strength,—we must think of neoplasm. He has no free acid in the gastric contents on a fractional test. The films show apparently only partial filling of the duodenum approximate to the pylorus. The cap seems free. Of course he might have duodenal ulcer. The evidence against this is: A normal cap and low-grade retention which is always associated with high acidity and duodenal obstruction. I think the most important finding in this particular case is achlorhydria. A probable achlorhydria is the deciding factor in the history of this case. This man probably has had an ulcer which has been transformed into carcinoma, but he should be explored as conditions will permit.

This patient was thoroughly studied. Occult blood tests were made on a number of occasions and all were found negative. The carcinoma we see here with persistent blood in gastric or feces contents is the adeno type. If you have seen a number of chronic benign ulcers at the operating table you will know that there is not much bleeding element in these patients. They are hard, caloused conditions. In many carcinomas you have the same conditions; when you operate early the bleeding conditions are not so marked. This is a good example of a patient that has been pretty well worked up. Curiously enough, his retention has been reduced under treatment until now his motility is normal, Dr. Strawn tells me. The greatest menace in this case is the age of the patient, the transition period of the ulcer, the clinical findings, and the gastric anacidity.

CASE No. 3. In the service of Dr. J. T. Strawn. History, read by Dr. Johnson:

Patient male, 59, carpenter, complained of "soreness in stomach, dull aching and heaviness of stomach". Trouble began in April, 1927, with gnawing epigastric pains one to three hours after eating, aggravated by sour foods or by exercise, relieved by milk or eating. Gastric analysis: Free Hcl 35, total acidity 64. Blood: Hemoglobin 80%, red cells 4,360,000, white cells 5,000. Stools negative for blood, X-ray: Stomach empties in normal time; stomach negative, but a definite duodenal deformity. Patient placed on ulcer management, with full response to treatment. September 4, 1927, had general abdominal

pain with increased severity in right lower quadrant with much nausea. Relieved next day, but following day had recurrence of same trouble. Operated, finding gangrenous appendix. Good recovery.

Dr. Eusterman: This patient had an interval acute appendicitis, and he also has a characteristic cap deformity which is almost unmistakable. In regard to the history that has been presented in this case, permit me to speak of just a few points in connection with the condition found.

Duodenal ulcer and appendiceal disease are very commonly coexistent, so much so that perhaps Deaver is right in saying that the appendix is often the focus of disease in the upper digestive tract. These two conditions are so commonly associated that in half of our patients with duodenal ulcer the appendix gives evidence, either in the history or at the time of operation, of gross demonstrable disease. This patient was managed and treated for duodenal ulcer, and in the interval he had an acute appendix. We should perhaps take care of the appendix and then go on and treat the ulcer. In the presence of a diseased appendix, if there is evidence of acute peritonitis the risk in operating is formidable. It is a curious incident that after removal of the appendix the ulcer often spontaneously subsides. In the last instance I had of a duodenal ulcer with an interval acute appendix, the factor that hampered here was that he had a big deal on, his business affairs were not going right, and mental stress is a most serious thing in preventing the healing of an ulcer. Therefore because he had symptoms of a perforative nature operation was done. This brings up the point of recognizing a perforating ulcer. Aside from the leucocytosis that may be engendered by local peritonitis, in perforating ulcer the pain radiates laterally or up along the sternum or into the back; or there is acute pain associated with hemorrhage—these are the clinical earmarks of a perforating or penetrating ulcer.

AUSTIN FLINT-CEDAR VALLEY FALL MEETING OCTOBER 23

The fall meeting of the Austin Flint-Cedar Valley Medical Society will be held at Iowa Falls, October 23. The detailed program is not yet available, but the secretary, Dr. Woodward, states that it will come up to the usual high standard of this old and well-known society.

IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines
Commissioner, State Department of Health

PREVALENCE OF COMMUNICABLE DISEASE

The past two months have witnessed the usual quietness as regards most of the communicable diseases. It is however, no doubt the calm that precedes the autumn increase which usually begins soon after the opening of school.

Poliomyelitis (infantile paralysis) has, during the past two months, been reported from twelve different parts of the state, namely—Charles City (Floyd county); Wyoming (Jones county); Cedar Rapids (Linn county); Dawson (Dallas county); Osage (Mitchell county); New Hampton (Chickasaw county); Hampton (Franklin county); Audubon (Audubon county); Des Moines (Polk county); Indianola (Warren county); Yarmouth (Des Moines county), and Spillville (Winnebago county).

To date twenty-five cases of the disease have been reported to the State Department of Health for the year 1928. This corresponds very closely to the figure reported at this time last year. Last year's total reported was 109 cases. There are two factors which will tend to give us more reported cases this year, namely:

1. More accurate diagnosis of mild cases, stimulated especially by Dr. Bierring's article in the August number of this Journal. Reprints of this article may be obtained on request from the State Department of Health. I feel sure that we are not yet getting reports of all cases. Dr. Bierring's article gives suggestions regarding early diagnosis that are very timely.

2. The disease is somewhat more widespread this year. On the other hand, we are using more vigorous methods in combating the spread of the disease. The report of a single case from a community is the signal for definite action. The cooperation on the part of the medical profession and the public has been splendid.

CONVALESCENT POLIOMYELITIS SERUM

Flexner (Jour. A. M. A., July 7, 1928, p. 24) says, "Convalescent serums alone are demonstrably effective. So far as human cases of poliomyelitis are concerned, the convalescent human serum alone, used early, offers any promise of specific therapeutic action. The virucidal effect endures in the blood many years after recovery from the acute attack of poliomyelitis. It has been detected twenty or more years after the attack."

In Iowa, convalescent poliomyelitis serum is now available through two laboratories, as follows: The Anna T. A. Glomset Laboratory, 1101 Equitable building, Des Moines, and the Jane Lamb Memorial Hospital Laboratory at Clinton.

The following is an abstract of State Health Department New Letter (to physicians)—No. 21:

POLIOMYELITIS (Infantile Paralysis) CONVALESCENT SERUM FOR PREVENTION AND TREATMENT

"Convalescent serum, that is, serum from persons who have recovered (two months to twenty-five years) from an attack of the disease is the only serum of proved value for either the prevention or treatment of poliomyelitis.

I. Prevention—in case of actual or probable exposure, especially of children, 10 to 20 c.c. subcutaneously. (See J. A. M. A., August 11, 1928, p. 384.)

II. Treatment—give within forty-eight hours if possible, and before paralysis.

A. Give (1) Intraspinal—5 to 15 c.c.; (2) Intravenous—10 to 50 c.c.; or (3) Intramuscular—10 to 30 c.c. Best combine intraspinal with one of the other two methods.

B. Repeat in twenty-four and forty-eight hours if symptoms do not subside or if, after subsidence, they recur.

III. Collection of convalescent serum or blood.

A. Procedure available to practicing physician. Reference—Shaw and Thelander. Intramuscular use of convalescent serum (or whole blood) in Treatment of Poliomyelitis. Jour. A. M. A., June 16, 1928, page 1923.

B. Regular procedure of having serum prepared by a dependable laboratory preferable.

It is well to remember that the serum does most good if given within forty-eight hours after the beginning of symptoms. Hence the importance of early diagnosis. It probably does little good after paralysis has set in.

Although the seasonal epidemic waves of poliomyelitis usually subside with the oncoming of cold weather in late October, it is well to remember that cases may occur throughout the winter.

UNDULANT (MALTA) FEVER

The number of cases of undulant (Malta) fever reported continues to increase. One hundred nine cases have been reported from July, 1927 to September 10, 1928. Dr. A. V. Hardy of the Hygienic Laboratory at Iowa City has done a splendid piece of work in connection with a study of the epidemiology of the disease. It is well for physicians to keep this diagnosis in mind whenever they have obscure "fevers"—especially

those resembling typhoid. In case of doubt send a specimen of blood (collected as for Wassermann test) to the State Hygienic Laboratory, Iowa City, Iowa.

SEASONAL COMMUNICABLE DISEASES

This is the time of year when we usually have a seasonal increase of a number of the more common communicable diseases. We may mention especially "colds", influenza, pneumonia, and scarlet fever.

Great progress has been made in educating the public regarding the spread of the common communicable diseases. Progress will, however, be much more rapid if every physician will impress on all of his patients the importance of the following two important rules of hygiene:

1. Always cover the nose and mouth with a handkerchief when sneezing and coughing.

2. Always wash hands with soap and water before eating or otherwise handling food.

SHEEP SERUM TOXIN-ANTITOXIN NOW SUPPLIED

Most of the diphtheria toxin-antitoxin supplied to date was prepared with horse serum. The small amount of serum which it contained was sufficient to, in some of the persons who had previously had a dose of horse serum probably in the form of some antitoxin, induce certain excessive reactions involving the skin. This is due to a local skin hypersensitiveness. It is not a true systemic anaphylaxis.

From now on all question of a possible reaction due to hypersensitiveness will be removed since the toxin-antitoxin (Squibbs) which will hereafter be supplied through the State Department of Health will have been prepared with sheep serum.

DIPHTHERIA ERADICATED BY 1930

Physicians have a wonderful opportunity to do something worth while in the cause of public health by inducing the parents of their clientele to have all of their children immunized against diphtheria by toxin-antitoxin. The best time to immunize them with the three doses (given a week apart) is when the baby is six months old—but any time up to sixteen years or older is better than letting it go.

Do not wait for a diphtheria epidemic to occur. It may strike in virulent form as it did in the town of Nevada (Story county) recently.

What can be accomplished by previous protection with diphtheria toxin-antitoxin and prompt and efficient action on the part of physicians and

health officers is well illustrated by this Nevada epidemic. Two persons, one adult and one child, neither of whom had ever been immunized, were stricken with a very virulent form of diphtheria which resulted in the death of both within a day after the symptoms appeared. Practically all of the school children of the town received diphtheria toxin-antitoxin a year ago. The outbreak was limited to these two cases. In contrast to this there occurred at Dyersville in Dubuque county during the past four months, sixteen cases of diphtheria with four deaths. None of these cases had received immunizing treatment with toxin-antitoxin.

HEALTH INSPECTION AT SCHOOLS

Throughout the country, health is receiving more and more attention in our schools. The subject is dealt with in considerable detail in the new "Course of Study for Elementary Schools" issued by Miss Agnes Samuelson, superintendent of the State Department of Public Instruction.

There has been comparatively little health inspection in the schools of Iowa. School physicians and health officers are so poorly paid in Iowa that they feel that they can give but little time to routine inspections and examinations. As a matter of fact most physicians are not very enthusiastic about having their competitor who is a part-time health officer examine all of the school children. A system that has worked out quite well in many communities is to have the public health nurse, working under the general direction of the school physician, the local health officer or a committee of the local medical society make occasional inspections and send notes to parents whenever something which apparently needs correction has been found. The nurse does not make a diagnosis. By way of a card and, if necessary, by follow-up work by the public health nurse, the parents are urged to have the child taken to the family physician or dentist for more careful examination and such treatment as may be necessary.

Physicians should see to it that the public health nurse in their community works in harmony and indeed in response to their wishes. The free lance public health nurse who does not carry on her work in conformity with the public health program of the local medical society is likely to do more harm than good. But it is necessary for the local society to have a public health program. The State Department of Health hopes that the next legislature will make provision for a special division of "Child Hygiene". Such a division has been endorsed by the legislative com-

mittee and the House of Delegates of the State Medical Society. It should be able to assist local medical societies very materially.

Meanwhile the State Board of Health has given recognition to the value of efficient health inspection in schools by passing the following modification to the present rule. "The provision in the rules with reference to the exclusion from school of exposed, well but susceptible (that is, have never had the disease) members of a family where there is a case of chicken-pox, mumps and whooping cough, shall not apply in case of schools where there is efficient daily inspection by a school nurse, working under the supervision of a school physician, health officer, or committee of the local medical society." The exposed child must of course be excluded as soon as suspicious symptoms develop.

The old rule worked many hardships since the disease often appears successively in a family of four or five children as a result of which, one child may be kept from school for one or two months. The rules of the State Department of Health relative to communicable diseases, previous to the modification mentioned, required that exposed and susceptible (that is those who have never had the disease) members of the family where there is a case of mumps, whooping cough, and chicken-pox, must be excluded from school for two weeks.

Physicians through their societies, may well take the initiative—directly or indirectly through parent-teacher associations—in urging school boards to make some provision for health inspections of schools. They should be prepared to advise the school boards and their superintendents as to the necessary qualifications of a public health nurse and a plan of procedure.

ANNUAL RENEWAL OF LICENSES

There are still, even after a second notice, 101 of the 3,394 physicians registered in Iowa who have not paid the one dollar annual renewal fee due in June. This means, according to law, that such are now practicing without a license. It is likely to have some significance if medical-legal questions arise. It has figured in malpractice and insurance cases. Also the federal narcotic and prohibition officer, who has a list of all physicians in good standing and that means, paid-up to date—will probably not renew the permit to dispense narcotics and prescribe alcoholic liquors when the present permit expires.

The law requires that your annual renewal card be displayed in connection with your original license. Do you have your 1929 renewal card?

The Journal of the Iowa State Medical Society

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Address all communications to the Editor of the
Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVIII October, 1928 No. 10

THE CORONARY ARTERIES—ANGINA PECTORIS—CORONARY OCCLUSION

Readers of current medical literature have noticed the increasing number of articles concerning the coronary arteries. Intense research is being conducted on these vessels to ascertain new facts about their anatomy, their physiology, their pathology, and their relation to cardiovascular diseases, especially to those forms occurring in adult life. Gross, Grant, and others, have added important anatomical information. Herrick, White, Willius, Christian, and others, have contributed to the clinical features attending obstruction of the coronaries. Dessauer, Guggenheimer, Smith, and others, through laboratory and clinical study, have established the value of certain therapeutic measures designed to promote the blood flow in these arteries. This work is carried on eagerly with the expectation that from it will come clearer discernment of certain features about heart disease in middle and later life which hitherto have been partially understood. It is probable that the conditions known as chronic myocarditis, the arteriosclerotic heart, the senile heart, cardiosclerosis and the hypertensive heart, have coronary artery disease as their background more frequently than it is suspected at present.

It is now more than 150 years since Heberden read his masterly description of angina pectoris, but today its cause remains unknown. Osler, in

his "Lectures on Angina Pectoris and Allied States", 1897, states that Huchard then had tabulated sixty-one opinions under six main theories. Numerous theories have been published since that time. However, opinions on the etiology of angina pectoris, previously discordant, are becoming more harmonious, to the extent that present opinion is swinging toward the conception that altered coronary circulation is the chief factor responsible for the condition. Albutt contended that angina pectoris is due to disease of the thoracic aorta, particularly to the outer investments, wherein lie the sensory endings that regulate blood-pressure. Whether the pain arises from anoxemia of the myocardium or from some other cause has not been determined.

Although Heberden's original description of angina pectoris has been quoted by several writers recently, a part of it should be given again. Note its remarkable clarity. "There is a disorder of the breast, marked with strong and peculiar symptoms, considerable for the kind of danger belonging to it. * * * The seat of it and sense of strangling and anxiety with which it is attended may make it not improperly be called angina pectoris.

"Those who are afflicted with it are seized while they are walking, and more particularly when they walk soon after eating, with a painful and most disagreeable sensation in the breast, which seems as if it would take their life away if it were to increase or to continue; the moment they stand still all this uneasiness vanishes. In all other respects the patients are at the beginning of this disorder perfectly well, and, in particular, have no shortness of breath, from which it is totally different."

The condition that Heberden portrays is a distinct clinical entity, and the intelligent physician will retain a mental picture of the type of patient he describes. But one still hears such expressions as "false", "pseudo" or "toxic" angina, and other meaningless terms. It should be said, however, that the ablest of the present workers in this field are discarding such terms, and the confusion of thought arising from their use is passing. We return to Heberden's conception of angina pectoris.

Occlusion of the coronary arteries may take place suddenly or gradually. The diagnosis of acute coronary occlusion is often one of the simplest problems in medical practice. The chief characteristics of the condition are: pain of unusual duration, and requiring large, repeated doses of morphine for its control, labored breathing, prostration, feeble heart muscle action, low-

ering of blood-pressure, transient evidence of pericarditis, fever, leukocytosis, and paroxysmal auricular fibrillation or other arrhythmias. The left anterior descending coronary branch, the one most frequently involved, has been called "the artery of sudden death". If death does not occur in a short time convalescence must be prolonged. Patients who suffer from angina pectoris are liable to have coronary occlusion.

Slowly developing occlusion is much less clear in its clinical manifestations. Future study of this particular phase of the subject offers much reward.

Only one phase of the treatment of angina pectoris and coronary occlusion will be mentioned, one of vital importance, yet too often neglected. Rest. Albutt urged its use. Many of those who have angina pectoris are of the high tension type for whom rest is doubly necessary. One is surprised at the benefit that sometimes comes to such individuals after a month of absolute quiet in bed. When one sees the hearts of patients who have died from coronary occlusion, with their infarcted areas of soft, friable muscle, he needs no further proof that months of rest offer the only hope of cure.

STATE COUNCIL TAKES DECISIVE ACTION

Every member but two of the Council, the president, president-elect, chairman of the board, and chairman of the Legislative Committee of the Iowa State Medical Society, participated in an all-day meeting in Des Moines Saturday, September 22.

The four main objects for discussion and action were: increased membership in the component societies; creation of a speakers' bureau; establishing of contact with lay health societies; and legislative problems.

It was unanimously voted to approve the increased workmen's compensation measure, which has been proposed by Industrial Commissioner, A. B. Funk. The measure is scheduled to come up at the next session of the Iowa legislature.

At the same time the council appointed a committee to cooperate with those state and volunteer organizations now engaged in public health work in Iowa. Dr. Channing G. Smith of Granger is the chairman with S. T. Gray of Albia as the second member.

The council also authorized the organization of a speakers' bureau to furnish speakers on health subjects for club and lay meetings. Scientific speakers will be provided for county societies also.

T. J. Edmonds, executive secretary of the Iowa Tuberculosis Association, and Miss Ina Tyler of the extension division of the University of Iowa spoke

before the session on the coordination of public health and social workers with the county societies.

Careful plans were made for preparing an accurate list of licensed physicians who are not members of the different component societies. Mr. Blank reported that the county secretaries were cooperating splendidly in the preparation of the list, and that it would soon be ready for reference to the censors of the various societies. He pointed out that the by-laws of the State Society required the keeping of a list of non-members which clearly indicated those eligible for membership in the local societies and those who were ineligible, but that this could only be done by the aid of secretaries, deputy councilors, and censors throughout the state.

Announcements regarding membership plans will be made to the component societies through the deputy councilors in a short time.

CLINICAL CONGRESS OF PHYSICAL THERAPY AND SEVENTH ANNUAL MEETING AMERICAN COLLEGE OF PHYSICAL THERAPY

Announcement is made of the third clinical Congress on Physical Therapy in conjunction with the seventh annual meeting of the American College of Physical Therapy, to be held at the Hotel Stevens, Chicago, October 8 to 13, 1928. For the past year plans have been under way to make this 1928 Congress the most interesting one ever conducted and one which will be difficult to surpass in the future.

The scientific addresses to be presented are of vital importance to the medical profession and will come from leading European and American authorities on the basic and practical phases of physical therapeutics. Symposiums on cancer and tuberculosis, the newest scientific information in these fields should prove attractive. Sectional meetings in medicine, surgery, and allied branches, and in eye, ear, nose, throat and oral surgery will be of interest to specialists in their respective fields.

Dr. Carl Sonne of the Finsen Medical Light Institute, Copenhagen, Denmark; Cav. Prof. Dr. Donato de Francesco of Venice, Italy; and Dr. A. R. Friel of London, England, will expound the results of their personal investigations in their respective specialties, while over one hundred leading physicians and teachers from all parts of North America will complete a program that cannot help prove inviting to every worker in physical therapy.

Physicians, their non-medical assistants and technicians, and hospital executives properly vouched for, are invited to attend all sessions for which only a nominal registration fee will be charged.

Program, registration card and other information may be secured from the American College of Physical Therapy, suite 820-30 North Michigan avenue, Chicago, Illinois.

President's Message

PROGRAM EXCHANGE

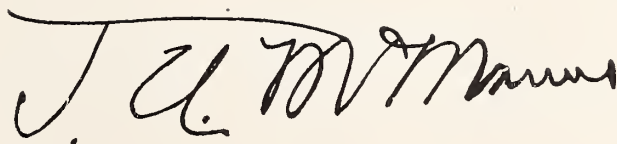
Many County Medical Societies in Iowa are experiencing difficulty in maintaining interest in their scientific programs. Physicians are hesitant about preparing papers and reading them before their own society.

Without attempting to discuss any of the problems of the County Society, I would like to propose November as visiting month. Let County number one invite County number three to visit County number one in November and furnish the program. County number three, in turn, may invite either County number one, or any other County, to furnish their program. For reasons too numerous for discussion, I will suggest that a County should not invite an adjoining County to put on the program.

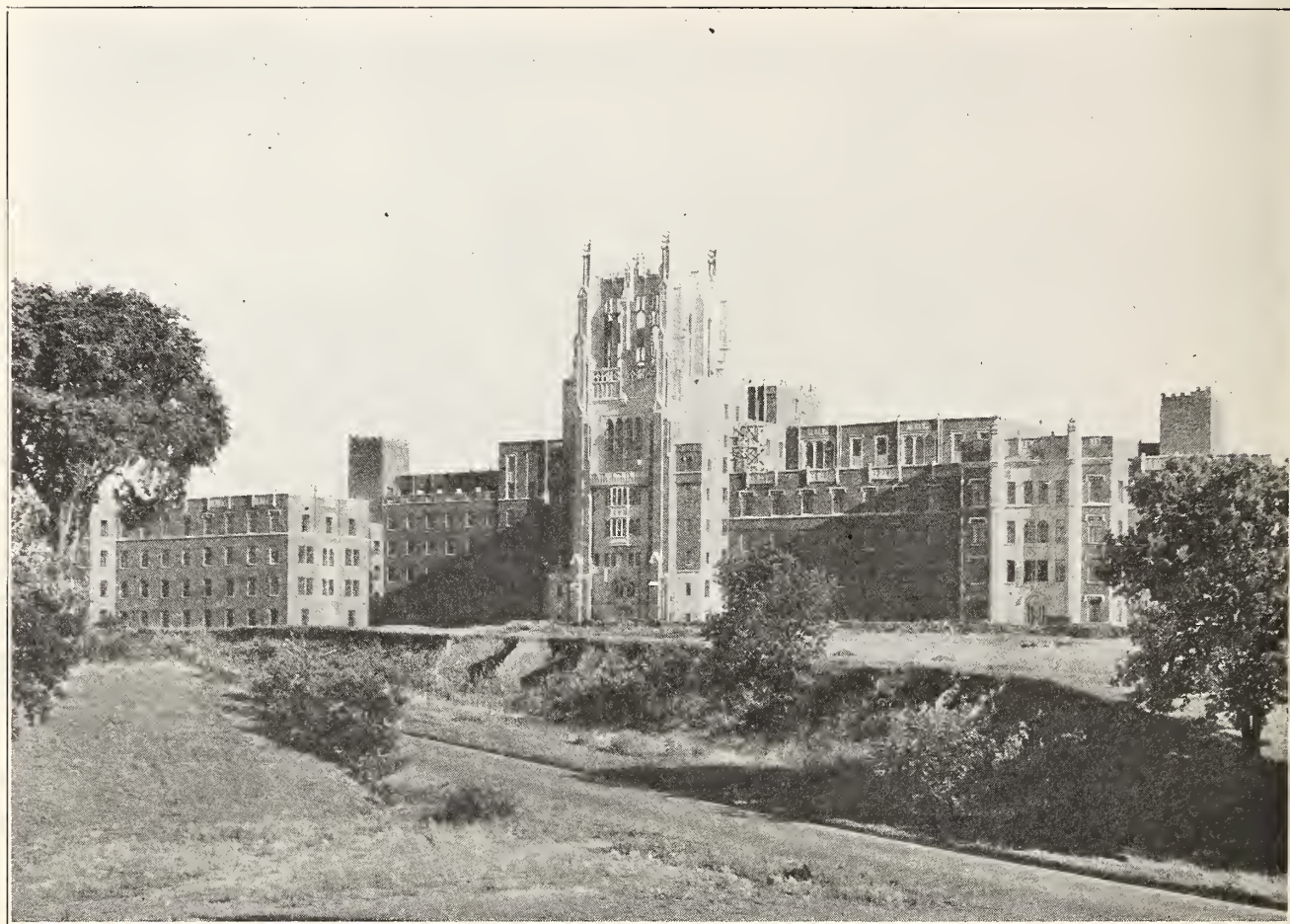
To those who are favorable to such an exchange of talent it is my suggestion that you immediately invite some County to furnish your program for the month of November.

The success or failure of such an exchange depends very largely on the efficiency of the County Secretary who receives the invitation asking his County to furnish the program.

I wish to emphasize that the County with a small Society should have no hesitancy in inviting any County, regardless of size, to put on their program. Furthermore, I wish to point out that many of these Counties with a small membership are capable of furnishing high-class programs acceptable to the largest County Societies.

A handwritten signature in dark ink, appearing to read "J. A. W. Munn". The signature is fluid and cursive, with a long horizontal line extending from the top of the first letter.

Formal Opening, New General Hospital, State University of Iowa



New General Hospital (north view) Main Entrance

THE NEW MEDICAL COLLEGE

The present session of the College of Medicine is of especial interest to the alumni and friends of the college. At last is realized what may have appeared to them to be only a day dream—a New Medical College, on a new campus.

The new medical campus, is about a mile west of the old site. It occupies about eighty acres on the bluffs to the west of the Iowa river overlooking the Old Capitol Campus. Of this about sixty acres are situated to the north of Highway No. 32. On this tract the first unit of the new college was opened in 1919. This was the Children's Hospital, and since then has housed the departments of orthopedic surgery and pediatrics. An addition to this building in 1925 increased its capacity to about 230 patients. The Psychopathic Hospital with provisions for sixty patients was built to the west of this. During the present year a third unit was added to this group, the Westlawn home for nurses. It houses the entire nursing staff of all the University Hospitals.

Completion of the west side medical campus was made possible by an appropriation of the Fortieth
(Continued on advertising page xxvii)

THREE DAY DEDICATORY PROGRAM

November 15, 16 and 17 will be devoted to a program of sight seeing, inspection, entertainment, and a series of addresses by distinguished speakers, in addition to the formal dedication. The program follows:

Thursday, November Fifteenth

Nine o'clock—Registration of Delegates and visitors.

Faculty Room, Medical Laboratories Building.

Ten o'clock—Inspection of the new buildings.

Twelve-thirty o'clock—Delegates will be the guests of the University at luncheon in the Iowa Memorial Union.

Two-thirty o'clock—

Group I—Public Health and Surgery. In the Surgical Amphitheatre, University Hospital.

(Paper)—Dr. Waller S. Leathers, Vanderbilt University.

(Clinic)—Dr. Dean Lewis, Johns Hopkins University.

Group II—Pharmacology and Medicine. In the Medical Amphitheatre, University Hospital.

(Continued on advertising page xxvii)

MISSOURI VALLEY MEDICAL ASSOCIATION MEETING

The Medical Association of the Missouri Valley will meet in Omaha, October 30 and 31, and November 1. An effort is being made to reorganize this worthy society to meet the demands of changing conditions. The county societies, hospital staff meetings and to a certain extent the state societies provide opportunities for the presentation and discussion of case reports and didactic papers. Many have expressed the belief that there is a place for a society whose activities are primarily educational and whose programs shall consist largely of original work of moment presented by the investigators in person, and of clinics given by master teachers in medicine. A glance at the program offered for the Omaha meeting will show that it fulfills the above requirements.

This year's meeting is to be held in Omaha because the Council thought it wise to return this year to Nebraska in order to ascertain if there is a demand in this district for programs similar to the one given in Omaha in 1926 and in Des Moines in 1927. If the profession wants such a society it will be necessary for physicians to make it known by their presence.

Membership dues are two dollars per annum. An initiation fee of one dollar is charged. Non-members pay an admission fee of three dollars.

PROGRAM

Tuesday, October 30, 1928

Morning Session

9:30—The Discussion of the Clinical Manifestations of the Lymphomata with Report of 136 Cases—Dr. C. W. Baldrige, assistant professor of medicine, University of Iowa, Iowa City, Iowa.

A paper by Dr. Vernon C. David, associate clinical professor of surgery, Rush Medical College, Chicago.

10:30—Some Considerations of Interest in Liver Diseases—Dr. Leonard G. Rowntree, The Mayo Clinic, Rochester, Minnesota.

11:15—The Etiology of Gastric and Duodenal Ulcer—Dr. A. C. Ivy, professor of physiology, Northwestern University, Chicago.

Afternoon Session

2:00—Surgical Clinic—Dr. Vernon C. David.

3:00—The Discussion of Certain Recent Developments in the Metabolism of Children—Dr. P. C. Jeans, professor and head of the department of pediatrics, University of Iowa, Iowa City, Iowa.

3:30—Further Posture Studies in Gynecology—Dr. Norman F. Miller, associate professor of obstetrics and gynecology, University of Iowa, Iowa City, Iowa.

4:00—Injuries of Upper Cervical Vertebrae—Dr. Charles Ryan, Des Moines.

4:30—A Study of the Principles Involved in Medical Diagnosis—Dr. Julius Weingart, Des Moines, Iowa.

Evening Session

8:15—The Physiology of the Gallbladder—Dr. A. C. Ivy.

9:15—Functions of the Liver—Dr. Frank C. Mann, The Mayo Foundation, Rochester, Minnesota.

Wednesday, October 31, 1928

Morning Session

9:00—Intestinal Obstruction Due to Pin Worms with Case Report—Dr. A. C. Stokes, Omaha, Nebraska.

9:30—Endocrinology in Relation to Skin Diseases—Dr. Alfred Schalek, professor of dermatology and syphilology, University of Nebraska, Omaha, Nebraska.

10:00—The Treatment of Heart Disease—Dr. James B. Herrick, professor of medicine, Rush Medical College, Chicago, Illinois.

10:30—Digitalis—Dr. P. T. Bohan, professor of medicine, University of Kansas, Kansas City, Missouri.

11:00—Low Back Injuries—Dr. Frank D. Dickson, Kansas City, Missouri.

11:30—Static Backache—Dr. Robert Schrock, assistant professor of orthopedic surgery, University of Nebraska, Omaha.

Wednesday, October 31, 1928

Afternoon Session

2:00—Medical Clinic—Dr. James B. Herrick.

3:00—Spirochoetal Lung Infection—Dr. Russel L. Haden, professor of experimental medicine, University of Kansas, Kansas City, Kansas.

3:30—A paper by Dr. M. L. Harris, president-elect of the American Medical Association, Chicago.

4:00—Newer Knowledge of the Physiology of the Semicircular Canals with Clinical Implications—Dr. James F. McDonald, professor of physiology, Creighton College of Medicine, Omaha, Nebraska.

4:30—Round Cell Infiltrations in Poliomyelitis and Encephalitis—Father N. Nichols, associate professor of anatomy, Creighton College of Medicine, Omaha, Nebraska.

Evening Session

6:30—Dinner—Hotel Fontenelle Ballroom. Toastmaster—Dr. Donald Macrae, Council Bluffs, Iowa.

Presidential Address—The Obligations of the State University Medical Schools. Dr. Fred M. Smith, professor and head of the department of medicine, University of Iowa, Iowa City, Iowa.

Dr. M. L. Harris, Dr. James B. Herrick and Dr. Ralph Major will also address the Society.

Thursday, November 1, 1928

Morning Session

9:00—Anemia in Infants and Children—Dr. Clifford G. Grulee, clinical professor of pediatrics, Rush Medical College, Chicago.

9:30—Studies on the Testicle with Especial Reference to Transplantation—Dr. Carl R. Moore, professor of biology, University of Chicago, Chicago.

10:30—The Physiology of Sinuses and Their Drainage—Dr. A. W. Proetz, assistant professor of otology and laryngology, Washington University, St. Louis, Missouri.

11:30—Myocarditis—A Clinical and Pathological Discussion—Dr. J. B. Clawson, assistant professor of pathology, University of Minnesota, Minneapolis, Minnesota.

Afternoon Session

2:00—Pediatric Clinic—Dr. Clifford G. Grulee.

3:00—Repair of Deformities Due to Severe Burns—Dr. Earl C. Padgett, Kansas City, Missouri.

3:30—Orthopedic Clinic—Dr. Karl R. Werndorff, Council Bluffs, Iowa.

MINNEAPOLIS MEETING OF THE NATIONAL AUXILIARY

The sixth annual session of the Woman's auxiliary to the American Medical Association was held in Minneapolis, Minnesota, June 11-15, 1928. Over 1,200 women registered and they were delightfully entertained and cared for by the local auxiliaries.

The business meetings were largely attended, 400 women being present at the all day session of June 14. Much interest was given to the reading of the papers and state reports. There are now well organized and efficient units in thirty states.

The abstracted proceedings will be printed at an early date and a copy sent to the entire membership.

The following officers were elected:

President—Mrs. Allen H. Bunce, 360 Ponce De Leon avenue N. E., Atlanta, Georgia.

President-elect—Mrs. Geo. H. Hoxie, 3719 Pennsylvania avenue, Kansas City, Missouri.

First vice-president—Mrs. Evarts V. DePew, 115 East Agarita avenue, San Antonio, Texas.

Second vice-president—Mrs. David W. Parker, 52 Clark street, Manchester, New Hampshire.

Third vice-president—Mrs. Horace Newhart, 212 West Twenty-second street, Minneapolis, Minnesota.

Fourth vice-president—Mrs. Frank W. Cregor, 1621 North Meridian street, Indianapolis, Indiana.

Treasurer—Mrs. Irvin Abell, 1433 South Third street, Louisville, Kentucky.

Secretary—Mrs. M. T. Edgerton, 788 Penn avenue, Atlanta, Georgia.

Parliamentarian—Mrs. F. L. Adair, 2500 Blaisdell avenue, Minneapolis, Minnesota.

Directors for two years—Mrs. John O. McReynolds, Dallas, Texas; Mrs. Wayne W. Babcock, Philadelphia, Pennsylvania; Mrs. A. Haines Lippincott, Camden, New Jersey.

Directors for one year—Mrs. F. P. Gengenbach, Denver, Colorado; Mrs. William E. Parke, Philadelphia, Pennsylvania; Mrs. J. T. Christison, Minneapolis, Minnesota.

Chairmen of Committees

Organization—Mrs. A. T. McCormack, Louisville, Kentucky.

Health education—Mrs. Geo. H. Hoxie, Kansas City, Missouri.

Hygeia—Mrs. A. B. McGlothlan, St. Joseph, Missouri.

Publicity—Mrs. T. C. Terrell, Fort Worth, Texas.

Program—Mrs. Southgate Leigh, Norfolk, Virginia.

Finance—Mrs. G. Henry Mundt, Chicago, Illinois.

Entertainments—Mrs. William Kuydendall, Eugene, Oregon.

Public Relations—Mrs. E. H. Cary, Dallas, Texas.

Revision of By-laws—Mrs. Morris Fishbein, Chicago, Illinois.

Special Appointments

Auditor—Mrs. C. W. Roberts, Atlanta, Georgia.

Historian—Mrs. E. V. DePew, San Antonio, Texas.

Committee on Health Films—Chairman: Mrs. John O. McReynolds, Dallas, Texas.

Committee on Resolutions—Chairman: Mrs. J. N. Hunsberger, Norristown, Pennsylvania.

Committee on Credentials and Registration—Chairman: Mrs. James N. Brawner, Atlanta, Georgia.

Special Advisory Committee—Mrs. S. C. Red, Houston, Texas, and Mrs. Seale Harris, Birmingham, Alabama.

NEWS NOTES FROM THE STATE UNIVERSITY COLLEGE OF MEDICINE

The fifty-ninth session of the College of Medicine of the State University of Iowa opened September 17 with the largest freshman class in the history of the institution. The three other classes are as large as in recent years. In 1911 the total number of students from the State of Iowa taking medicine was 390. Of these only 96 were in the College of Medicine at Iowa City. In 1927 the total students from Iowa taking medicine was 581; of these a total of 415 were in the College of Medicine at Iowa City. In other words during the past seventeen years the number of students of the state of Iowa taking medicine in their own Medical College has increased from less than 25 per cent to almost 72 per cent.

New members of the staff are:

Dr. Andrew H. Woods, head of psychiatry, and director of the psychopathic hospital.

Dr. Cyrus W. Rutherford, associate professor and acting head of ophthalmology.

Dr. Lee Foshay, assistant professor of medicine and director of student health.

Dr. C. S. Jordan, assistant professor of hygiene and epidemiology.

Dr. P. M. Moore, assistant professor of otolaryngology.

WARNING TO IOWA PHYSICIANS

Iowa physicians are urged to be on the lookout for a man giving the name of F. H. Leigh, who represents himself to be a service man in the employ of C. M. Sorenson Company, Inc., of Long Island City, New York. He has been in Davenport, Cedar Rapids, and Des Moines offering to repair on a "cost of service" basis the equipment made by this company. It has been his practice to present a bill which includes a large number of supply parts which are "to be sent later" but for which he collects cash.

That he has no connection with the company is indicated by the following sentences from a letter sent a member of the Iowa State Society by the Sorenson Company:

"We have received a number of complaints regarding this party, F. H. Leigh, and would like very much to get our hands on him, as he is nothing but a fraud. We would suggest that you inform your colleagues and any information you could give us would be gratefully appreciated." If such an individual turns up in your community, wire or phone the office of the State Society.

SOCIETY PROCEEDINGS

Cerro Gordo County Medical Society

The Cerro Gordo County Medical Society met Tuesday, September 18 at six p. m. for a barbecue luncheon which preceded the meeting. Thirty-five members as well as a number of guests were attracted by the program so cleverly set forth in the following announcement sent to society members:

Cerro Gordo County Medical Society

Tuesday September 18, 6 p. m.—A barbecue luncheon ala Decker at Peoples Gas and Electric Auditorium.

Dr. C. B. Luginbuhl of Des Moines will give an address on "Differential Diagnosis of Upper Abdominal Pain", with lantern slide demonstrations.

It is desired that we have a good attendance. Free food, free use of the auditorium, and free telephone service. Those of you who always arrange to be called out will not be inconvenienced in any way. So come and enjoy a good program.

Dr. T. A. Burke,
Dr. B. F. Weston,
Dr. W. E. Long,
Committee.

Entertainment: Monologue—C. K. Kinney (in Swedish).

Annual Meeting of the Clayton County Society

At the annual meeting of the Clayton County Medical Society at Elkader September 5, the following officers were elected: President, Dr. J. A. Cahill, Volga; vice-president, Dr. E. B. Hanson, Edgewood; secretary-treasurer, Dr. J. W. Hudek, Garnavillo; delegate, Dr. W. H. Thomas, McGregor; al-

ternate, Dr. F. J. Kriebs, Elkport; censors, Drs. W. H. Thomas, J. A. Cahill, and W. J. McGrath.

Dr. J. W. Hudek, Sec'y.

Dubuque Society Diamond Jubilee

The rare privilege of an Iowa County Society holding a diamond jubilee was the occasion for an unusually fine meeting of the Dubuque County Society Wednesday, September 19. The afternoon session was opened by memorial tribute to the eighty-two deceased members. As this necrology went back to the founding of the society three-quarters of a century ago, the necrologist had a considerable task which was performed by Dr. J. R. Guthrie of Dubuque with accuracy and a rare charm of manner. The scientific program followed and consisted of four papers, each of which elicited discussion. They were: Localization of an Intracranial Lesion Giving a Visual Defect, Anatole Kolodny, M.D., assistant professor of surgery, State University of Iowa Medical School; The Value of Electrocardiograms in Cardiac Diagnosis and Prognosis (illustrated), Walter Scott, M.D., associate professor of medicine, Northwestern University; Symptomatic Epilepsy, Clarence Van Epps, M.D., professor of neurology, State University of Iowa Medical School; and Treatment of Chronic Arthritis, Ernest E. Irons, M.D., professor of medicine, Chicago University Medical School.

Following a complimentary dinner at the Hotel Julien, Dubuque, the special guests of the society were introduced, among whom were Drs. D. S. Fairchild, Sr.; Paul Gardner, councilor of the fourth district; M. B. Glasier, who has been secretary of Grant County (Wisconsin) Medical Society for twenty-five years; Plass and Chase of the State University, and state senator Lange and state representative Ryder. Dr. R. R. Harris, president of the society, read a number of congratulatory letters and telegrams, after which toastmaster Dr. F. P. McNamara introduced Dean Henry S. Houghton of the State University Medical School, who spoke upon The Relation of the College of Medicine to the Profession and the Community. The president of the Iowa State Medical Society, Dr. T. U. McManus of Waterloo, delivered the address of the evening upon Some Problems Confronting the Medical Profession of Iowa, following which Mr. Vernon Blank, managing director of the State Society, made a few remarks upon Service to the Component Societies.

There was a large attendance at the scientific session, and 150 guests were entertained at the banquet.

Fayette County Society Meeting

About twenty were present at the September meeting of the Fayette County Medical Society which was held in West Union Monday, the 17th, at 7 p. m. The members of the society were the guests of Drs. Mercer, Kind, Moen, Jerdee and Walsh. T. N. Walsh, M.D., of Hawkeye, reported the case of a woman with tubercular involvement of the upper right lobe accompanied by circulatory failure, hyper-

tension, and arteriosclerosis, which attracted unusual interest. M. A. McDevitt, D.D.S., of Oelwein, read a paper on Dental Impactions in which special stress was laid upon the relief obtained in the treatment of obscure head pains and lassitude due to the reflexes of impacted molars. This was illustrated by pictures and x-ray dental films. W. A. Rohlf, M.D., of Waverly, gave an illustrated lecture, *Some Common Mistakes in Diagnosis*. This was a fine presentation of the subject with emphasis placed upon care in history and examination, and a lively discussion followed in which most of the members joined.

C. C. Hall, Sec'y.

Hardin County Society Meeting

At 2 p. m. Tuesday, September 18, the bi-monthly meeting of the Hardin County Medical Society was held at Alden, Iowa. The three following papers were presented: *The Diagnostic Value of Arterial Pressure*, J. R. Winnett, M.D., Eldora; *Arteriosclerosis and Its Influence on Hypertension*, Guy B. Anderson, M.D., Ackley; and *Significance of Hypertension in the Pre-Apoplectic State*, Clark W. Mangun, M.D., Iowa Falls. The session was concluded with a picnic supper in the park.

Jackson County Meeting

An interesting and profitable meeting of the Jackson County Medical Society which was attended by twenty-one Dubuque physicians, occupied the afternoon of Thursday, September 6. The meeting was called to order at State Park near Bellevue at 2:30 p. m. by the president of the Jackson County Society, Dr. J. C. Dennison of Bellevue. Four papers were presented: *Report of a Case*, E. L. Lampe, M.D., Bellevue; *Malignant Tumors of the Testes*, E. P. McNamara, M.D., Dubuque; *Foreign Bodies in the Chest Cavities* (with lantern slides), H. E. Thompson, M.D., Dubuque; and *Goiters*, F. R. Peterson, M.D., Iowa City. Some forty physicians were present for the meeting.

Lee and Des Moines County Societies Meeting

The members of the Lee County Society and the Des Moines County Society united in a meeting at Fort Madison on the evening of August 28. G. J. Pearson, M.D. and D. S. Huston, M.D., both of Burlington, presented a paper on *Mastoiditis*, and following it a discussion was opened by Frank Preissman, M.D., of Keokuk. The other paper, *Enlarged Prostate*, was presented by A. A. Eggleston, M.D., of Burlington and the discussion led by Carl Autremont, M.D., of Keokuk.

Linn County Society Meeting

On September 13 the Linn County Medical Society met at the Roosevelt Hotel and listened to the presentation of a paper by Anatole Kolodny, M.D., assistant professor of surgery of the State University, on the subject of *Cranial Trauma*. A good attendance was reported at this interesting meeting.

Muscatine County Society

The Muscatine County Medical Society held its first fall meeting at the Elk's home in Muscatine, Tuesday, September 11; the first thing on the program being a fish fry at 6:30. At half past seven the thirty-two members and guests assembled for the presentation of a paper on *Hand Infections* by Sumner L. Koch, M.D., Chicago, abstract editor of "Surgery, Gynecology and Obstetrics".

Mississippi Valley Health Conferences Held in Des Moines

It seems to be the consensus of opinion of the delegates that the Mississippi Valley Conference at Des Moines September 17 to 19 was one of the best conventions of this organization ever held. The registration of actual delegates reached a final total of 457 and in addition many local people including various members of the Polk County Medical Society attended sessions in which they were interested.

The territory includes twelve states—Illinois, North Dakota, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, South Dakota, and Wisconsin—and Chicago.

The Mississippi Valley Sanatorium Association held three sessions on Monday, September 17, one at the Fort Des Moines Hotel and two at Broadlawns. The medical section of the general conference Tuesday afternoon in charge of Dr. Alfred Henry of Indianapolis was also particularly strong.

The most unusual feature of the meeting was the fact that the Register and Tribune took up eight of the officials in its airplane "Good News". George Hamilton, secretary of the Convention Bureau, conducted a group of national officers around the city. They were especially impressed with the Shrine Temple and Hoyt Sherman Place and indicated the possibility of the 1930 convention of the National Tuberculosis Association being brought to Des Moines.

Many social features were offered and delegates declared in this respect the convention was the best they had ever attended. The most conspicuous occasion was the annual dinner Monday evening, September 17. Mr. M. A. Auerbach of Indianapolis, president of the Conference, opened the meeting and then turned the program over to Dr. John H. Peck as master of ceremonies. Dr. Peck had planned all the arrangements in connection with this occasion. Excellent music, flowers, a good menu and a snappy group of short speeches contributed to the success of the evening. Dr. Linsly Williams, managing director of the National Tuberculosis Association, New York, was the principal speaker. Six other members of the national executive committee responded with short talks.

The executive committee of the national association and its special committees on child health, business administration and publicity and publications met here during the conference.

The officers of the conference were: President, M. A. Auerbach, Indianapolis; vice-president, Mrs. H. H. Holdridge, Madison, North Dakota; secretary, T. J. Edmonds, Des Moines. The officers of the Sanatorium Association were: President, Dr. Ernest S. Mariette, Minneapolis; vice-president, Dr. Selig Simon, St. Louis; secretary, Dr. Royal W. Dunham, Ottawa, Illinois. The new officers of the conference which will meet next year in Grand Rapids, Michigan, are Dr. J. W. Coons, Stevens Point, Wisconsin; Dr. Charles H. Lerrigo, Topeka; T. J. Werle, Lansing.

The various periodicals published in Iowa, the Des Moines Register and Tribune, the Associated Press, United Press and International News Service were mentioned in the resolution of thanks as having assisted greatly in the success of the convention by publicity afforded. Included in the list of publications was the Journal of the State Medical Society which gave excellent notices in two issues. Dr. T. U. McManus, president of the society, sent a personal letter announcing the convention to officers of all county medical societies and Dr. John H. Peck, president-elect, sent a letter to physicians connected with the Iowa Heart Association, the Iowa Tuberculosis Association and other groups interested in public health.

PERSONAL MENTION

The physicians of Greene county not only assisted in the conduct of a baby health contest during the county fair but a member of the society is the father of the grand sweepstakes winner. Lauren Lucke, two-year-old son of Doctor and Mrs. Richard Lucke, was the prize baby with a score of 98.3 per cent.

Dr. and Mrs. A. L. Yocum, Sr., celebrated their golden wedding anniversary on Wednesday, September 5, and in commemoration of the event assembled their children and grandchildren among whom was another physician, Dr. Albert Yocum, Jr., of Chariton, who is also an active member of his county and the State Society.

Mr. Michael G. Wohl of the Mercy Hospital staff of Council Bluffs, Iowa, has recently returned from Vienna, where he spent nine months in post-graduate work in internal medicine. He has been granted leave of absence from the Mercy Hospital for the purpose of organizing a new department of Temple University Medical School of Philadelphia.

Dr. J. P. McManus, formerly of Parnell, Iowa, purchased the practice and equipment of the late Dr. P. J. Hession and moved to Graettinger in the latter part of August.

Dr. C. E. Ruth announces that his son, Dr. Verl A., has returned to Des Moines and will be associated with him in practice at 718 Equitable building.

Dr. M. W. Rogers, formerly of Pleasanton, is moving to Leon, occupying the office of Dr. C. H. Mitchell, who has gone to Indianola where he has succeeded Dr. W. M. Park.

Dr. C. C. Winter of Greenville, who for fifteen years has been practicing in Clayton county, is moving to Farmington, Missouri, where he will continue practice.

Dr. Carl Matthey, son of the late Dr. Henry Matthey, who was long a member of the Scott County and State Medical Societies, has begun practice in Davenport, being located in the First National Bank building with Dr. Walter Matthey, his cousin.

MARRIAGES

Dr. C. H. Graening and Miss Ruth Hertlein, both of Waverly, were united in marriage August 28 at nine o'clock. The Rev. J. Graening, father of the groom, performed the ceremony. They will reside in Waverly, where Dr. Graening is already in practice.

OBITUARY

Dr. Samuel Bailey of Mount Ayr died at his home August 24, 1928, after an illness of several months.

Dr. Bailey was born in Rock Island County, Illinois, September 1, 1851. He began the study of medicine under the preceptor plan with Dr. J. H. Saylor of Prompton, Mercer County, Illinois, and attended Rush Medical College, Chicago, from which he graduated in February, 1879. Immediately after



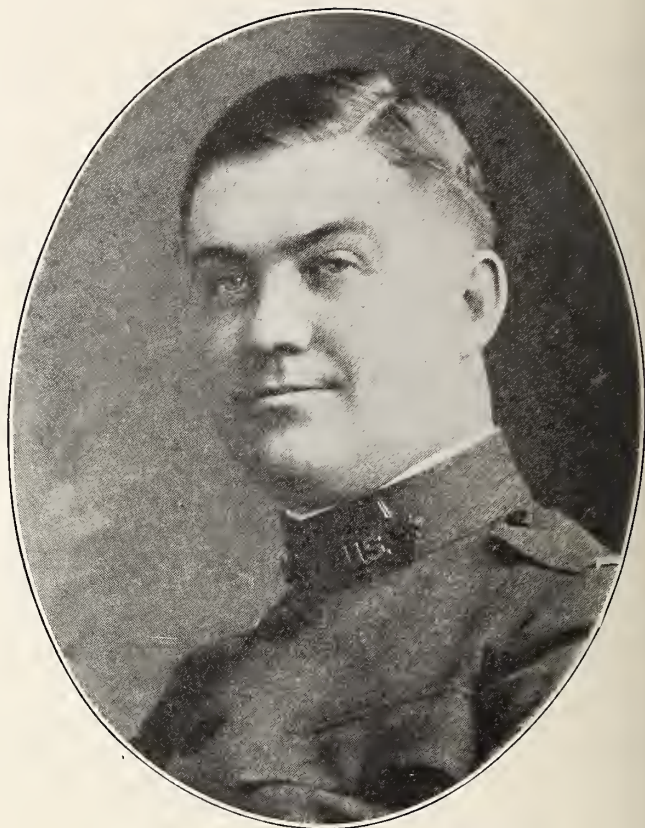
SAMUEL BAILEY, M.D.,
Mount Ayr

graduating Dr. Bailey began the practice of medicine at Mount Ayr, where he continued in practice until the time of his death, for a period of more than fifty years.

When Dr. Bailey began the practice of medicine in Mount Ayr the country was comparatively new and he had, therefore, much of the hardship of the pioneer doctor. But this did not interfere with his interest in medicine. Dr. Bailey became a member of the Iowa State Medical Society in 1894 and his thirty-four years of membership was marked by a constant and devoted activity. He had very decided opinions in relation to moral questions, particularly in the use of alcohol, either as a beverage or as a therapeutic agent. He had but little patience with tobacco. Dr. Bailey did not permit advancing years to interfere with his interest in medicine or medical organization, and in recent years he had served as secretary of his county medical society.

On April 7, 1897, he married Miss Julia A. Merrill, daughter of Dr. John T. Merrill, who survives him.

Dr. Bailey was interested in civic activities, was a member of the Masonic fraternity, was formerly a member of the Episcopal church, and later of the Methodist Episcopal church. Dr. Bailey was so constantly present at the annual meetings of the Iowa State Medical Society that he will be missed and his passing deeply deplored.



MATHEW J. FITZPATRICK, M.D.,
Mason City

Dr. Mathew J. Fitzpatrick died at Mercy Hospital, Mason City, May 20, 1928.

Dr. Fitzpatrick was born at Elkader, Iowa, September 20, 1885. He received his preliminary education in the parochial and public schools of Elkader and his premedical work at the Iowa State University. He received his medical degree from the Northwestern University Medical School, Chicago, followed by a two years internship at Michael Reese Hospital. In 1911 he began practice at Mason City.

Dr. Fitzpatrick enlisted in the medical corps of the United States Army in 1918 and was commissioned first lieutenant. He was first stationed at Greenleaf, Georgia, and later was transferred to New York City, where, with other surgeons, he cared for wounded soldiers returned from France. He was also in charge of trains transporting wounded soldiers to various hospital stations. He was discharged, after valuable service, in 1919.

Dr. Fitzpatrick was associated with Park Hospital until the fall of 1922 and was president of Mercy Hospital staff in 1926-27. He was local surgeon Chicago, Milwaukee & St. Paul Ry. Co. and was health officer of Mason City from 1925 to the time of his death.

Dr. Fitzpatrick married Miss Inez B. Drumhiller, who died February 3, 1920. On June 7, 1922, he married Rilla Thompson, who survives him.

Dr. Fitzpatrick was a member of many medical organizations: The Cerro Gordo County Medical Society, Austin Flint-Cedar Valley, The Minnesota State Medical Society, The American Railway Med-

ical Association, Fellow of the American Medical Association, The American Public Health Association, and Phi Sigma Pi Medical Fraternity. It will be observed that Dr. Fitzpatrick was a medical practitioner of unusual activity and in a comparatively brief period gave evidence of great usefulness, and particularly of thorough and carefully prepared training.

Dr. Herman Alexander White was born in Lockport, New York, February 9, 1877. He moved at an early age to Chicago, where his entire education was obtained. He graduated from the Chicago Manual Training School and in 1900 from Rush Medical School. He obtained his hospital training at the Cook County Hospital under the guidance of Dr. A. J. Ochsner. After practicing for a period of two years at St. Charles, Illinois, he spent a year in the clinics of Europe, concentrating his efforts, however, on those of Vienna, Austria.

In 1904 he came to Clinton, where he had since been engaged in the practice of medicine and surgery. In 1914 he again took special work for several months in the clinics of Vienna.

In 1918 he was appointed captain in the medical service. For the past year he had been suffering with a very obscure trouble, which finally caused his death May 12, 1928.

After moving to Clinton Dr. White devoted himself largely to the practice of surgery, for which he



HERMAN A. WHITE, M.D.,
Clinton

had a peculiar fitness. He was a member of the Mercy Hospital staff, of which he was an active member, and also of the Clinton County Medical Society and the American Medical Association.

Dr. S. H. Bateman of Washington died at a Burlington hospital June 13, 1928, at the age of forty-six years.

It appears that Dr. Bateman and wife had started on an automobile trip and he was taken sick at Burlington and taken to a hospital, where he died.

Dr. F. W. Horton of Sanborn, Iowa, died at his home March 3, 1928, at the age of fifty-eight years.

Dr. Horton was born at Ft. Atkinson, November 7, 1870; received his preliminary education in the public schools of Volga and Belmond and his medical education, for a six year period, at the University of Iowa, and in 1894 began practice of medicine at Sanborn, where he gained an enviable reputation. That he had social qualities is shown by the important civic organizations in which he held high places, as master of Onyx Lodge (Masonic) and a member of Scottish Rite.

Dr. Horton was a member of the O'Brien County Medical Society, the Iowa State Medical Society, The Hahnemann Association of Iowa, and The American Institute of Homeopathy.

On September 26, 1895, he married Miss Harriet Smiley, who survives him.

Dr. Dorsey F. Emmert died at his home in Avoca, May 17, 1928, at the age of sixty-four years.

Dr. Emmert was born at Hagerstown, Maryland, February 2, 1864. Received his preliminary education at the high school of his native town and graduated with high honor. He graduated in medicine from the Jefferson Medical College in 1890 and commenced practice in Atlantic the same year, where he continued in practice until he was attacked with paralysis in 1925.

Dr. Emmert was married at Atlantic, Iowa, April 10, 1892, to Miss Elizabeth Child, who, with three children, survives him. One son is Dr. Frederick V. Emmert, of St. Mary's Hospital, St. Louis, Missouri.

Dr. Emmert was for many years a leading physician in Atlantic.

Dr. Francis Happe died at Clarkson Hospital, Omaha, April 9, 1928, following a major operation for some bladder disease.

Dr. Happe was born in Germany December 28, 1877 and died at the age of fifty-one. When fourteen years of age he came to Iowa. He began the study of medicine at Dubuque and completed his course at Iowa City. After receiving his medical degree at the University Medical School, he served as hospital intern for two years. He then returned to Dubuque, where he specialized in ear, eye, nose and throat. After practicing at Dubuque seven years, he located in La Crosse, Wisconsin, where he practiced ten years, when he moved to Danbury, Iowa, and continued in practice up to the time of his death.

Dr. Happe married Miss Bernadine Rekher of Arcadia, who survives him.

Dr. Paul B. Vosburg died at his home April 9, 1928. Dr. Vosburg was born at Clinton, Iowa, July 22, 1866, graduated from Clinton High School and in medicine from Northwestern University Medical School, Chicago, in 1892, and a post graduate course at Johns Hopkins University, Baltimore, Maryland. He practiced in Granville, Iowa, for eight years. In 1902 Dr. Vosburg retired from practice and became a successful farmer.

June 7, 1893, he married Miss Stella Sherwood of Chicago, who, with five children, survives him.

Dr. Charles Webster McDade died at his home in Moorhead, Iowa, August 24, 1928, at the age of sixty-six years, having been born at Hagerstown, Maryland, in 1861. Dr. McDade graduated from the University of Michigan and located in Moorhead, February, 1913, whence he came from Faribault, Minnesota, engaging in general practice. He was examiner for several life insurance companies, was always interested in public health and welfare work and was long a member of both the Monona and Iowa State Societies. The cause of his death was

arteriosclerosis of the coronary vessels. He is survived by his widow and one daughter.

Dr. Eli Whitlock died at his home in Columbia, Iowa, September 3, of cardiovascular failure. Dr. Whitlock was eighty years of age and began his practice in Iowa in 1886. He was for many years a member of the Marion County Medical Society and the Iowa State Medical Society. Dr. Whitlock had been retired from active practice for some time before his death.

Dr. B. L. Prentis died at Detroit, June 22, 1928, after a year's illness, at the age of fifty-seven years.

He was a graduate of the Ohio State University Medical School. Dr. Prentis was interested in politics and represented Ringgold county in the twenty-sixth and twenty-eighth sessions of the General Assembly and in 1903 was appointed to the immigration service at Detroit.

Dr. Max G. Schlapp died at the Post Graduate Hospital in New York City, of pneumonia, March 5, 1928.

Dr. Schlapp was born in Ft. Madison, Iowa, November 4, 1870, and was educated in the public schools at Ft. Madison, Cornell University, New York, and Bellevue Hospital Medical College. Later, Dr. Schlapp was appointed assistant professor of neuropathology at Cornell University, and since 1911 had been professor of neuropathology at the Post-Graduate Hospital Medical School and director of the Children's Court Clinic. While his professional work had been conducted in the City of New York, he was born and received a part of his education in Iowa.

SMALL DOSES EFFECTIVE

When we say that one ten-thousandth part of a grain of adrenalin is sufficient to produce a physiological effect when administered to an adult, we are in the region of the infinitesimal. Adrenalin as used in medicine is never more than one-thousandth of the strength of the original; the best known commercial product is adrenalin chloride solution 1:1000; ampoules are offered containing solutions of 1:2600 and 1:10,000; and for certain uses the strength may be not more than 1 to 100,000.

It is no wonder, then, that adrenalin has been found capable of reviving the heart action in cases of apparent death, when injected directly into that organ; that it is always thought of in cases of collapse; and that in the paroxysms of asthma it has long been the sufferer's only hope.

Adrenalin is a Parke-Davis discovery. Takamine, of the Parke-Davis staff, the first to isolate the pure active principle, made his announcement in April, 1901.

BOOK REVIEWS

NASAL NEUROLOGY HEADACHES AND EYE DISORDERS

By Greenfield Sluder, M.D., F.A.C.S., Clinical Professor and Director of the Department of Oto-Laryngology, Washington University School of Medicine, St. Louis. With 167 Illustrations Including 2 Color Plates. The C. V. Mosby Company, St. Louis, 1927.

In 1918 Dr. Sluder published a volume entitled "Headaches and Eye Disorders of Nasal Origin". In the present volume he has reproduced considerable of the neurological material of this former work.

In the opening chapter he introduces a pleasing theory for the irregular development and growth of intra-nasal abnormalities, substantiating his theory by presenting numerous microscopic sections.

He explains and discusses at considerable length the so-called vacuum frontal headaches. His viewpoint concerning the etiology of this disease, however, is not that generally accepted by rhinologists.

In another section the author discusses neuralgias or neurosis, involving the anterior ethmoidal nerves, and the sphenopalatine ganglion and its branches. He further furnishes treatment in the form of anesthetics for their relief.

A detailed description of hyperplastic sphenoiditis with its relations to adjacent nerves is discussed and makes up the largest chapter in the book. The line of thought is hard to follow, but some new ideas are presented that are of interest to the rhinologist. Dr. Sluder believes that the bony changes that take place in hyperplastic sinus disease produce changes in the adjacent nerves. He describes in detail his technique in operating on the ethmoidal and sphenoidal sinuses, as well as his operation on the antrum. The latter operation is discussed in another chapter and it is worthy of any rhinologist's time to read.

A short chapter on orbital abscess is well written, and reviews the author's experience of sixty cases of this nature.

In the closing part of the book, he presents typical case histories, illustrating the conditions discussed in the earlier chapters of the text. H. J. McC.

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION

The Collected Papers of the Mayo Clinic and the Mayo Foundation for 1927, Volume XIX. Edited by Mrs. M. H. Mellish and H. Burton Logie, M.D. Octavo Volume of 1,330 Pages with 412 Illustrations. Philadelphia and London. W. B. Saunders Company, 1928. Cloth, \$13.00 Net.

This volume is the nineteenth of the collected papers to be published by the Mayo Clinic. Each year the number of papers from the Clinic becomes

greater, and for this reason the selection of papers for publication in book form becomes a greater task. The Committee of Publication are to be commended in their compilation, since the papers published in full are of interest to the greatest number of physicians, whereas those which are abridged or abstracted are reproduced sufficiently to render their contents readily appreciated. Those referred to by title only are those of a strictly technical nature. In this volume, one hundred papers are reproduced in full, thirty-four are abridged, forty-four are abstracted briefly, and two hundred and twenty are referred to by title.

The present volume maintains the high standard set by the previous publications from this clinic.

LOCAL ANESTHESIA

By Geza de Takats, M.D., Assistant Professor of Surgery, Northwestern University School of Medicine, Chicago, with an Introduction by Allan B. Kanavel, M.D., Professor of Surgery, Northwestern University School of Medicine. Octavo of 221 Pages, with 117 Illustrations. Cloth \$4.00. W. B. Saunders Co., 1928.

The practice of local anesthesia in surgery has become so well established that little may be said beyond the method to be employed. It may be admitted that the success of local anesthesia in relieving pain in operations, and the various purposes for which it may be employed, depends upon the skill of the administrator. Of course in the earlier use of local anesthesia many failures or partial failures occurred, which were followed by renewed efforts on the part of the pioneers in local anesthetics, with the result of increased range of success and applicability. We have several excellent monographs on local anesthesia, and anesthesists have reached a high degree of skill, but probably the last word has not been said. The book before us has been endorsed by men of high position and we welcome it as a further contribution to this important field of surgery.

D. S. F.

DIABETIC MANUAL FOR PATIENTS

By Henry J. John, M.A., M.D., F.A.C.P., Maj., M.R.C., Director of the Diabetic Department and Laboratories of the Cleveland Clinic. St. Louis. The C. V. Mosby Company, 1928. (With 42 Illustrations.) Price \$2.00.

It is reported that in the United States alone, at least one million persons are suffering from diabetes. It is further shown that the condition is on an absolute increase. With these factors before us, a well-written manual on this subject for the guidance of the patient is not amiss, even though there are already many well-written and highly useful manuals of this sort available.

Dr. John, in this manual, has offered certain fundamental information for the patient relative to the etiology of the disease, its hygienic and dietetic management, keeping constantly before the patient the need for medical cooperation in handling the case. About one-third of the page space is devoted to a study of foods and food recipes. A series of food charts in colors will be of material assistance in visualizing food values for the diabetic patient.

This small book of two hundred pages is well written and will be readily understood by the average intelligent patient.

PRINCIPLES AND PRACTICE OF OBSTETRICS

By Joseph B. DeLee, A.M., M.D., Professor of Obstetrics, Northwestern University Medical School. Fifth Edition, Thoroughly Revised. Large Octavo of 1140 Pages, with 1128 Illustrations, 201 in Colors. Philadelphia and London. W. B. Saunders Company, 1928. Cloth \$12.00 Net.

Dr. DeLee needs no introduction to American physicians, since his position in the profession and especially among obstetricians as a lecturer and writer has made his name familiar to all.

His first text, entitled "Notes on Obstetrics", was offered the profession twenty-nine years ago. Its popularity necessitated its revision and reprinting up until 1913, when the first edition of the "Principles and Practice of Obstetrics" was published as an outgrowth of and supplanting his former text. This latter text received immediate attention, and was accepted by many schools as standard for medical teaching. During the past fifteen years, this text has met with five revisions and three additional reprintings. The present volume, the result of such an evolution and as a record of many years of active practice, is one of the best on this subject in any language. Its attitude is sane, its thoroughness is striking, and its compilation is masterful.

THE MEDICAL CLINICS OF NORTH AMERICA

Volume II, Number 4, Octavo of 277 Pages, with 53 Illustrations. Paper, \$12.00 Net. Cloth, \$16.00 Net. W. B. Saunders Company, 1928.

We have before us a Brooklyn number with Brooklyn contributors. The first clinic is by Dr. Henry Monroe Moses, under the title of "Problems in Diagnosis at Kings County Hospital". The number of particular interest is "Raynaud's Disease, Central Nervous System Involvement". The case presented was an unusual one of multiple gangrenous dermatitis, secondary to septic thrombosis of the capillaries with the primary focus in the mitral valve.

An interesting clinic is presented by Dr. Archibald D. Smith, "Intracranial Hemorrhage of New-born". Report of sixteen cases, with three autopsies.

"Management of the Alimentary Tract in Pneumonia, with Special Reference to the Diet and Artificial Induction of Bowel Evacuations", a clinic by Dr. Edward E. Cornwall, may be mentioned among others as a fair example of the entire volume.

D. S. F.

THE MECHANICS OF THE DIGESTIVE TRACT

An Introduction to Gastroenterology. By Walter C. Alvarez, M.D., Associate Professor of Medicine, University of Minnesota, (The Mayo Foundation). With 100 Illustrations. Second Edition. Paul B. Hoeber, Inc., New York, 1928.

Dr. Alvarez presents in the preface to the first edition the circumstances that led him to study the mechanics of the digestive tract as a foundation to the science of gastroenterology. It is an interesting and inspiring bit of history on the gradients of rhythmicity, irritability and latent periods found in the stomach. Dr. Alvarez was filled with the hope that a careful analysis of the gradients found in the bowels might throw light on the mechanism of peristalsis, and it was in the spirit of this hope that led him to pursue a series of investigations.

The subject is not easy to follow, but worth while in a brief way. In view of Dr. Alvarez's hope of bringing forth matter of interest to the practitioner, we shall attempt to call attention to some of the facts that may lead to a more careful study of the book than might be implied in the title only.

D. S. F.

MODERN METHODS OF TREATMENT

By Logan Clendening, M.D., Associate Professor of Medicine, Lecturer on Therapeutics, Medical Department of the University of Kansas; Attending Physician, Kansas City General Hospital; Physician to St. Luke's Hospital, Kansas City, Missouri. With Chapters on Special Subjects by H. C. Anderson, M.D.; J. B. Cowherd, M.D.; H. P. Kuhn, M.D.; Carl O. Rickter, M.G.; F. C. Neff, M.C.; E. H. Skinner, M.D.; and E. R. DeWeese, M.D. Second Edition. The C. V. Mosby Company, St. Louis, 1928. With 95 Illustrations.

This work, now in its second edition, was written and published originally to meet an apparent need for a more rationally compiled text for medical students. The author alleges that certain glaring defects are present in other texts written on this subject, and has therefore attempted to overcome these faults in this volume. He further hopes to introduce certain constructive ideas in the formal presentation of this subject which would be condu-

cive to clarity in description. The author has accomplished his aim to a great extent and has compiled a most useful text for students. The book is well-written and the practitioner will find it to be a ready reference manual, presenting in detail the many useful methods of administering treatment.

It is my belief that the volume might be made more instructive, and certainly more positively interesting had the author correlated the physiology and pathology involved with the method of treatment suggested. The second part of this volume is devoted to the special application of therapeutics to the individual diseases. This part is written in outline form, a form which should be adequate both for the student and practitioner to follow in applying the principles described in the earlier chapters of the book.

References for collateral and reference reading are furnished at the end of each chapter. For the most part, they are directed to easily accessible American literature. The illustrations in the volume are not up to the standard of the text material. The photographic illustrations, particularly of skin lesions, are not well chosen. The diagrammatic illustrations, while artistically mediocre, are more useful in exemplifying the written descriptions.

A TEXT-BOOK OF PRACTICAL THERAPEUTICS

With Especial Reference to the Application of Remedial Measures to Disease and Their Employment Upon a Rational Basis. By Hobart Amory Hare, B.Sc., M.D., LL.D. Professor of Therapeutics, Materia Medica, and Diagnosis in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital, Etc. Twentieth Edition, Enlarged, Thoroughly Revised and Largely Rewritten. Illustrated with 158 Engravings and 8 Plates. Lea & Febiger, Philadelphia. 1927.

It is very uncommon that one reviews a text-book which has persisted in its popularity and usefulness over a period of time sufficiently long to justify even a dozen revisions. This volume by Dr. Hare is the result of twenty revisions—a fact that bespeaks its popularity as a text-book. The present volume is complete and in every sense modern. Here one will find a discussion of the use of bismuth and tryparsamide in late syphilis; ethylene as an anesthetic; novarsurol as diuretic; metaphen as an antiseptic; ephedrin as a vaso-constrictor and isasen as a laxative.

Part I deals with matter introductory to the study of pharmacology. Part II discusses the pharmacology, toxicology and therapeutics of individual drugs. Part III contains articles on remedial measures other than drugs, while part IV discusses the therapeutics of many diseases and symptoms under the name of each malady.

(Continued on advertising page xviii)

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BOOK REVIEWS

(Continued from page 416)

Dr. Hare states that "The object of this book is to place the subject of treatment before the reader so that it may be applied at the bedside in a rational manner." The thoroughly practical fashion in which the author has presented the subject matter in this work bears testimony of his close adherence to his avowed objective. This text-book bears our sincere endorsement.

STRABISMUS: ITS ETIOLOGY AND TREATMENT

By Oscar Wilkinson, A.M., M.D., D.Sc.; Surgeon-in-Chief of Washington Eye and Ear Hospital, Washington, D. C. The C. V. Mosby Company, St. Louis, 1927. With 120 Illustrations.

This is the only text devoted exclusively to a discussion of Strabismus which has come to my attention. Great good may be accomplished by a wider dissemination of information relative to this condition. The author fittingly stresses the fact that non-operative corrective treatment is rarely effective except when begun at a very early age. He has discussed the etiology, anatomy, and physiology of the eyes and ocular muscles, as they are related to the problem of strabismus. Methods of examination are clearly outlined, and the non-operative treatment of the condition is fully discussed. One chapter is devoted to operative procedures in which the operative technique is fully outlined and illustrated.

The book is quite superior from the standpoint of its compilation and workmanship. The numerous, well-chosen illustrations are faithfully reproduced, many in colors, and all from fresh cuts.

The volume is highly recommended to any physician desiring authoritative information on the subject of strabismus.

ASTHMA, ITS DIAGNOSIS AND TREATMENT

By William S. Thomas, M.D., Associate Attending Physician in Immunology, St. Luke's Hospital, New York. Twenty Illustrations in Black and White and Six in Colors. Paul B. Hoeber, Inc., New York, 1928.

Now that asthma is no longer looked upon as a disease, but as a symptom complex, related to anaphylaxis, bronchospasm, and hypersensitiveness; a group of symptoms classed as allergic that can be reached by immunological processes, our conception of treatment has changed. Under this group of allergic, come numerous allergic processes, designated as asthma. The nature of predisposition to asthma is recognized in the term allergy, sensitiveness, hypersensitiveness, anaphylaxis (often hereditary), elements, and many agencies well known.

The author passes in review all these complicated questions, including the pathology of asthma, and the management of a case. Stress is given physical examination, methods and findings. A considerable portion of the book is given to treatment, palliative and curative. Considerable space is given to protein skin tests and their technic, as this is fundamental to the prevention or cure of the symptoms. Desensitization, anlogenous vaccine skin tests, foods, treatment by pollen, complications of asthma, methods of treating asthma, are all subjects comprehensively discussed. An important chapter is devoted to some causes following the treatment of asthma.

We have presented the various subjects relating to asthma that the author has discussed, which can only be understood by a careful reading of the book.

Asthma is interesting and important to so many people and advice and information is so often sought of the family physician, that he could not do better than to familiarize himself with the contents of this book.

D. S. F.

GYNECOLOGY FOR NURSES

By Harry Sturgeon Crossen, M.D., F.A.C.S., Professor of Clinical Gynecology, Washington University Medical School, and Gynecologist in Chief to the Barnes Hospital and the Washington University Dispensary, Etc. With 365 Engravings, Including One Color Plate. The C. V. Mosby Company, St. Louis, 1927.

This volume has been prepared as a text-book for use by nurses. It is quite thorough and complete; in fact, so much so that it would appear to the reviewer as more suitable for the guidance of supervisory nurses or graduate nurses on private duty than for the undergraduate. It is purely a manual of detail in gynecological nursing technique. Sufficient anatomy, physiology, and surgery have been introduced to complete an understanding of the principles evolved in the second part of the volume. The generous use of well chosen illustrations adds materially to the value of the volume as a teaching guide.

ALUMINUM COMPOUNDS IN FOODS

Including a Digest of the Report of the Referee Board of Scientific Experts on the Influence of Aluminum Compounds on the Nutrition and Health of Man, By Ernest Ellsworth Smith, Ph.D., M.D. Paul B. Hoeber, Inc., New York, 1928.

This book of 378 pages is devoted to the value of aluminum in food. The conclusions arrived at are that aluminum is a normal ingredient in food. Aluminum is not a foreign element in living matter, but is present as an essential constituent. Aluminum in the body departs itself much in the same way as does iron, and is not injurious.

D. S. F.

The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, NOVEMBER, 1928

No. 11

EYE DISORDERS OF NASAL ORIGIN*

F. L. WAHRER, M.D., Marshalltown

The role played by nasal infections in diseases of the eye, has been recognized for some years. However, it has only been recently that we have so fully realized the important part played by the nose in these cases. Holmes says that 40 per cent of all eye diseases originate in diseases of the nasal sinuses. Eye diseases of nasal origin may be generally divided into four groups, classified according to the structure involved, as follows: First, diseases of the optic nerve. Second, inflammation involving the soft tissue of the orbit. Third, the conjunctiva, and fourth, the uveal tract. Of these, the most important is the involvement of the optic nerve.

In order to more properly understand why the nose plays such an important part in these conditions, I will briefly outline the close anatomic relationship which exists here.

The lateral and inferior walls of the orbit are very thin in the region of the accessory sinuses. These walls are covered by periosteum which is closely attached to the bone and is frequently penetrated by diploic veins which arise in the sinus walls and empty into the orbital veins. The orbit derives its main blood supply from the ophthalmic artery and its veins empty into the ophthalmic vein. The vascular portion of the nerve is directly supplied by the central retinal artery. The intra cranial portion derives its supply from the small muscular branches of the ophthalmic artery, and is drained by the vein of Vossius which empties into the cavernous sinus. This vein has numerous branches from the periosteum of the posterior portion of the orbit, and from the periosteum lining the sphenoidal and ethmoidal sinuses. Thus we see that the blood and lymph circulations of the orbit and sinuses are intimately interwoven. Loeb, Westlake, and others, have demonstrated in large series of cases

that the optic nerve is in close relation to the last posterior ethmoidal cell, at the posterior, superior and external angle.

White, after numerous sections and x-ray pictures, determined that the average normal size of the optic canal is 5.5 m.m. in diameter, and that they range in size from 3.5 m.m. to 6.5 m.m. This anatomic deviation is undoubtedly the reason that some cases do not do as well as others under similar conditions. A swollen nerve in a small bony canal will undergo greater pressure and consequently greater pathologic change than if there was more room for expansion. White feels that the size of the canal may influence the type of treatment. Where the canal is smaller than normal, surgical interference should be instituted without delay. Where the canal is larger than normal, accessory sinus operations are seldom necessary.

Ocular disease appears to arise from nasal infections in one of two ways. Either by the absorption of toxins from a focus of infection, or by contact between the pathologic process in the nose and some ocular structure. The mucous membrane of the conjunctiva through the lacrimal sac and canal forms one continuous whole with the mucous membrane of the nose. Like the mucosa of the nose, the mucosa of the conjunctiva is rich in lymphatic and vascular tissue. Direct extension of infection can take place in this way.

Disease of the optic nerve is the most important complication of nasal disease. The main symptoms of optic nerve involvement are varied. The one paramount symptom, however, is loss of vision. In beginning cases the patient may be conscious of dimness of vision although vision may show normal on the test card. Enlargement of the blind spot is held by many observers to be a constant symptom of sphenoid and posterior ethmoid disease.

However, I have not found this to be true in my experience. The blind spot has only shown enlargement in about 25 per cent of the cases coming under my care. Enlargement of the blind

*Presented before the Seventy-Seventh Annual Session, Iowa State Medical Society, Cedar Rapids, Iowa, May 9, 10, 11, 1928, Section Ophthalmology, Otology and Rhino-Laryngology.

spot may occur in normal cases, and in any event is a symptom of ocular pathology and not of nasal pathology.

Central scotoma is quite frequent, in varying degrees of intensity. I feel that it is present, however, in only about 10 per cent of the cases. The peripheral contraction of the visual field is present in a fair percentage of cases, but I doubt if it is of great importance as a diagnostic sign, as other factors may contribute to such a contraction.

The ophthalmoscopic picture of course is the most corroborative sign accompanying the main symptom of loss of vision. This picture varies from a choked disc to the smallest degree of optic nerve involvement. In fact, in several cases the nerve head presented a normal appearance. Unfortunately, we seldom get these cases at such an early stage. One sign which is present in many cases of optic neuritis from sinus disease, is the lack of power of accommodation in the affected eye. The diagnosis of optic neuritis is in itself not difficult, as a rule. But the diagnosis of optic neuritis due to sinus infection is not always so easy to make. This difficulty, however, should not cause us much concern or make us hesitate in regard to our treatment.

Pressure is one of the main factors in retrobulbar neuritis from sinus disease. Atrophy takes place in about fifteen to twenty days, and as we usually get these cases rather late, there is as a rule very little time to lose, in starting treatment. There should be no hesitation in draining the nasal sinuses in these cases. When other causes have been eliminated, the sinuses should be considered the cause of the optic neuritis, and should be promptly opened, even though the nasal findings may be negative. Beck and Pillat say that the danger of operating is not nearly as great as the danger of not operating. Smith and High both feel that exploratory operation on the sinuses is always justifiable.

Optic neuritis secondary to sinus disease may be divided clinically into two types; the curable and the non-curable. This depends upon the length of time before the patient comes in for treatment, the degree of visual disturbance present, and the promptness with which the disease is diagnosed and treated. White feels that in some of the milder cases, where vision is still fairly good, drainage can be obtained by shrinking the soft tissues, applying suction, and using silvol in the nose. There is a question in my mind as to whether this is not a dangerous procedure unless the patient is in the hospital under constant observation. While an acute sinus infection may

cause ocular disturbances, it is generally the chronic type that is found in optic neuritis. And we know that chronic sinus disease does not respond readily to local treatment. I feel that these cases should be operated at the earliest possible moment.

Chronic conjunctival disease is caused by nasal infection in about 50 per cent of a series of cases examined by Myers. Direct extension of the infection may take place along the lacrimal canal to the conjunctiva. Also, infection can be forced into the canal by forcible blowing of the nose. Extension of the infection through lymphatic and venous channels is also possible.

Conjunctival infections of nasal origin may be divided into the following groups. 1. Follicular conjunctivitis in children. 2. Chronic calcareous granular conjunctivitis. 3. Chronic catarrhal conjunctivitis. 4. Phlyctenular conjunctivitis.

1. In follicular conjunctivitis in children, we get a history of numerous attacks of "pink eye", blepharospasm, epiphora, and many head colds. In addition to the nasal condition found in these cases, there is usually the added complication of diseased tonsils and adenoids. The removal of the tonsils and adenoids, followed by intensive nasal treatment, attention to the diet, and the use of cod liver oil, will soon clear up the conjunctival infection.

2. Chronic calcareous granular conjunctivitis is in many cases associated with various types of nasal deformities. Sharp septal deflections and spure of the vomer are commonly found in these cases. The removal of the deformity, with attention to the local condition of the eye, will as a rule give quick results.

3. Chronic catarrhal conjunctivitis is found most often to be a complication of a chronic rhinitis due to a low grade ethmoid infection. The first step in the treatment is the eradication of the ethmoid infection. This must be followed by treatment of the nasal mucosa as well as of the conjunctiva, and results will not be obtained until the chronic rhinitis has been controlled.

4. Phlyctenular ulceration in children is in many instances due to a nasal infection. According to Dowling, this infection is most frequently found in the maxillary sinus. These cases are usually further complicated by diseased tonsils and adenoids. After removal of the tonsils and adenoids, the maxillary sinus disease will in many instances clear up with local treatment of the nose, but in some cases antrum drainage with the installation of silvol or mercurochrome may be necessary. When the nasal condition is con-

trolled, the ulcerations will prove quite amenable to treatment.

Orbital cellulitis is usually the result of an acute sinus infection, or an acute exacerbation of a chronic infection. It is the result of infection of the anterior sinuses, rather than the posterior sinuses, as in optic neuritis. The patient complains of the orbital swelling, following close upon a bad cold, with the accompanying symptoms of an acute sinus infection without adequate drainage. I find it seldom necessary to operate these cases. These cases should be placed in the hospital where routine treatment can be carried out. It is my practice to shrink the turbinates, and apply suction. A modification of the Dowling pack with 25 per cent silvol is then used, followed by infra red heat for twenty minutes. This treatment is used three or four times daily. When the acute attack has subsided, a submucous resection is done, with the removal of a portion of the middle turbinates, if necessary.

Uveitis is practically always of septic or toxic origin. However, it is not commonly the results of nasal accessory sinus disease, and one should be sure that other sources of infection are not at fault, before resorting to sinus surgery. Uveitis is much more common in infections arising in the teeth, tonsils, intestines, prostate and seminal vessels. In addition to these, syphilis, gonorrhea and tuberculosis are very common causes.

Case Reports

1. W. H. Reports that about three days ago while at work, he noticed his right eye was blurred. There has been very little pain. Examination shows right nerve head very hazy. Retinal vessels congested. Vision 20/200. No central scotoma. Visual field markedly contracted. The nasal septum is thick and deflected to the right, high and posteriorly. A small amount of pus was present in the right middle meatus. Tonsils contain large crypts containing pus. Advised immediate operation which was refused. Local measures were instituted. Three days later the vision was 15/200 and patient consented to operation. A submucous resection was done, and the posterior ethmoid cells which were necrotic, were exenterated. The right sphenoid was opened, but no pus found. Two days later the tonsils were removed. Ten days later, vision was 20/40 and eventually his vision returned to 20/20.

2. Mr. S., age forty-eight. History of having nose broken when seven years old. Kicked by a horse thirteen years ago. Since then has had headaches which have become increasingly severe. At times the right eye becomes extremely blurred. Examination shows right v. 20/40, left 20/20. Right disc margins are fuzzy and slightly edematous. The perimeter showed a central scotoma for red and blue, with enlargement of the blind spot. Septum is

deflected to the right, and is very thick. A submucous resection was done, at which time an extreme deflection of hard bony posterior septum was found where the septum joins the sphenoid rostrum. It was tightly wedged against the middle turbinate and was so osseous that it had to be chiseled out. The sphenoid was opened but no pus found. The ethmoids were not necrotic. Within forty-eight hours all headache had disappeared and four weeks later vision was normal, and the scotoma had disappeared.

3. H. M., age thirty-two. Eyes have always been sensitive. Lids become red and inflamed very easily. Examination shows vision 20/30 each eye. Both correct to normal. Lids show a chronic catarrhal conjunctivitis of many years standing. Examination of nose shows an S-shaped deflection of the septum with large middle turbinates. A submucous resection was done, one-third of each middle turbinate removed and both ethmoids curetted. Local treatment on the lids then cleared up the conjunctival trouble and he has had no trouble for the past five years.

4. G. B., age twenty. Subject to frequent colds. More or less constant nasal discharge. After a bad cold the eyes become inflamed and small ulcers form around the cornea. Gives a history of seven attacks in four years. Examination shows phlyctenular conjunctivitis right. A large amount of greenish pus is present in both middle meati. Both maxillary antra were cloudy. Tonsils large and diseased. The tonsils were removed and local treatment applied to the nose. She was put on a proper diet, with cod liver oil and syrup iodide of iron. The eye cleared up in ten days, and the nasal condition in about three months. There has been no recurrence of eye trouble for six years.

5. C. B. Has had grippe for past five days. Yesterday left eye began to swell, and a severe frontal headache developed. Examination showed a thick septum deflected to the left, with a large boggy middle turbinate completely blocking the middle meatus. The left eye was markedly swollen, and the lids edematous. The turbinate was shrunk and suction applied every three hours. Following this a silvol pack and heat for twenty minutes was applied to the left side. Large amounts of pus were obtained by suction for the first three days, with a marked cessation of the orbital swelling. He was discharged from the hospital at the end of six days, and made an uneventful recovery.

6. A. S., age twelve. Has many head colds, with chronic nasal discharge. Both eyes inflamed at present. Reports six attacks of eye trouble in past three years. Examination shows marked irido cyclitis. Retinal vessels engorged. Tonsils large but not diseased. Moderate amount of adenoid tissue present. Both middle meati contain yellowish muco pus. The right frontal sinus and both maxillary antra were cloudy. The tonsils and adenoids were removed and local treatment started on the nose. The acute eye symptoms subsided in about two weeks, but some ciliary injection with engorgement of the retinal

vessels persisted for about seven weeks, at which time the nasal infection had about cleared up. The patient was discharged shortly after this, and for the past five years has had no more eye symptoms.

SUMMARY

1. Holmes states that about 40 per cent of all eye diseases are due to nasal infection.

2. The close anatomic relationship of the eyes and nose necessarily makes the nose a most important factor in eye diseases.

3. Ocular disease arises from nasal disease either by the absorption of toxins from a focus of infection, or by contact between the pathologic process in the nose and some ocular structure.

4. Diseases of the anterior sinuses cause affections of the bulb, while those of the posterior sinuses cause optic neuritis.

5. Optic neuritis is generally secondary to chronic sinus disease, while orbital cellulitis is usually due to acute sinus infection.

6. Pressure is one of the main factors in retrobulbar neuritis of nasal origin. Atrophy in this type of cases can occur in from fifteen to twenty days.

7. The treatment of optic neuritis of nasal origin is surgical in practically every case. The ethmoid-sphenoidal group must be drained without delay.

8. The cure of all eye diseases of nasal origin must primarily depend upon the eradication of the nasal infection.

Discussion

J. B. Naftzger, M.D., Sioux City—I realize of course that nasal pathology has something to do with eye disorders but I must confess that it was rather startling that such a large number of eye disorders was due to nasal sinus infections. We must be very open-minded in making our diagnosis before arriving at a conclusion. Many foci of infection should be considered such as teeth, tonsils, gastrointestinal disturbances, etc. Personally I have never been able to classify my findings so definitely and have not found such a large percentage of eye infections due to nasal sinus diseases. I am opposed to promiscuous operations on apparently healthy sinuses.

Dr. J. C. Decker, Sioux City—For the benefit of the fellows here I am going to give you a personal experience with my left eye. It seemed and felt like an eye-lash rubbing on the cornea. I had a number of slight attacks but never able to find anything wrong. It passed away until July the second, the doctor looked in my eye, but did not find anything, but from that time on until September 23, I practically did not have a comfortable minute. I had marked photophobia, headache, and increased lacrim-

ation, I had everything that went with a severe type of keratitis. I had practically everything done in the way of treatment, x-rays, tonsils were out, I had repeated negative Wassermanns and had my upper teeth out. I consulted several of the best men in the country and in spite of the fact that the x-rays of my sinuses was negative, at least they showed so little that nobody seemed to think there was any excuse for opening them, on September 23, I had my left antrum, ethmoids and sphenoids opened and drained and in five days I was free from the photophobia and lacrimination and in three weeks time I was well. There really was no pathology found in the sinuses except that the mucous membrane was of a grayish appearance and a slight amount of mucopurulent secretion. No culture was made.

Dr. A. J. Bedell, Albany, New York—I am neither convinced that 40 per cent of eye diseases are caused by nasal pathological processes nor do I feel that we have many optic nerve inflammations the result of sinus infections. It would be unfortunate to give the impression to the public that in the presence of failing vision an immediate nose operation is indicated. Greater attention should be paid to the focal infections by which we mean isolated collections of pus under pressure. After a competent internist has exhausted all of his resources, I might then consent to have my sinuses opened. It is to be particularly understood that this only refers to an obscure disease where the local examination is negative, the x-ray studies fail to disclose pus in the nasal accessory sinuses and where the complete general physical inspection sheds no light on the problem. My plea is for closer cooperation and more intimate contact with those practicing internal medicine. I have seen a patient who in the presence of an immobile pupil, abolished knee jerk, contracted field of vision and a four plus Wassermann had all of his sinuses, which were normal to all tests, opened without any consideration to the systemic infection. In answer to the doctor who has just cited his personal experience with a keratitis, I feel that he has some general infection and that the improvement following the mere opening of his sinuses was coincident with a period of regression. His partial ptosis, bulbar conjunctival injection and slight blepharospasm are proof that he is not as yet cured.

Dr. G. A. May, Des Moines—I am inclined to be with the minority and I believe that most of the literature on this subject is a little more on the side of the minority than the majority. For instance, Hoffman and Salomonsen report on 4,400 cases of sinus disease and out of this number observed that there were but twenty cases of the orbital complications including all forms. It does not seem reasonable to me that sinus disease or intra-nasal disease could fully account for the changes we find pathologically in a retro-ocular neuritis with little change in the nerve head. Pathologists have fully described the changes we expect in the various forms of optic nerve disease; and of the orbital complications which

could be due to direct inflammation or purulent infection from the nose, we have those which result from orbital cellulitis and meningitis. Neuritis has to do with toxic conditions, this of course might be due in some cases to nasal disease, but we have to consider the tonsils, teeth, appendix, gall-bladder, and a great many other possible sources. Some four or five years ago the Royal Ophthalmological Society, in joint meeting with the Section on Rhinology started the discussion of this subject and three or four times since, they have met together and at one of these Collins said he had never seen a case of retrobulbar neuritis due to sinus disease. Mayou reports three cases associated with the antrum, and one with posterior ethmoid infection. Logan Turner reports twenty-five cases, he also states he never yet had seen a case of retro-bulbar neuritis due to sinus disease. Hajek considers the rhinological origin of retro-bulbar neuritis with extreme skepticism. In this country White of Boston eight or nine years ago started to write and discuss this subject and reported seventeen cases, and followed the general trend by saying that these cases were due to sinus infection, he opened the sinuses with the usual percentage of recovery, again within the last year he has reported some sixty more cases, and in only a very few of these does he feel that the sinuses were the origin of the nerve changes so that it would seem he has made a complete reversal of his original reviews on this subject. I cannot agree with the essayist that 40 per cent of eye disorders are of nasal origin.

Dr. A. J. Bedell, Albany, New York—I know perfectly well we may have a scleritis which may come from a nerve head irritation and if we block off the ganglion with cocaine may immediately get cessation of symptoms. I do not believe your history is against the minority.

Dr. G. F. Harkness, Davenport—It seems to me that the essayist needs a little support. Optic nerve conditions are not common from sinus disease, but they do occur. If I had a retrobulbar neuritis, with failing vision, and careful examination failed to find a cause or possible foci in other parts of the body; if there was the least suspicion of a post-ethmoiditis or sphenoiditis, I certainly would want these cavities opened. I would gladly take the chance with the minor operation if there was any reason for its indication, when my vision was impaired due to a disturbance of the optic nerve.

F. L. Wahrer, M.D. (closing)—When I read this paper, I expected and was looking for some criticism and discussion and got it. I hope that I did not give you gentlemen the impression that every case of optic neuritis was due to sinus infection. I did not mean that. I was simply calling attention to the fact that there are many cases in which we find that optic neuritis was due to nasal infection. It would be foolish to say that all cases of optic neuritis were due to sinus infection. However, in my own experience and in the experience of men I

have talked to, I cannot agree with the statement that nasal accessory sinus infection is rare. I see them quite commonly. I said when all other causes have been eliminated that sinus infection may be considered the cause. I do not believe I have ever taken an optic atrophy where the patient had a four plus Wassermann and tried to cure him by opening his antrum. If a man has syphilis with an optic atrophy certainly we may not feel we can cure him by opening his sinuses. That is self evident. There are many things that can cause optic neuritis, among which is nasal infection, but you must eliminate a great many other causes. Dr. Bedell, if I was losing the vision in my eye and had been gone over by competent men and they could not find any cause whatever, I could not get my sinuses opened fast enough. I would do anything. Opening the ethmoid and sphenoid sinuses is not such a terrible thing. It is not like trying to remove a pituitary gland, but is a comparatively simple operation in the hands of competent nasal operators, and I do not see why it should cause such a storm of protest to want to operate a sphenoid and ethmoid to save an eye. Glass eyes can be had of course, but you cannot see through them. As to the doctor that gave his experience, that is not uncommon. There are such things as vacuum sinus infections and hyperplastic sinus conditions which are infective without pus. We advise opening them and they get relief from their eye conditions. When Dr. Bedell stated that blocking the ganglion with cocaine would cause a cure in these cases, that could only be a temporary proposition. I am afraid that the old saying, "There are none so blind as those who will not see", applies to Dr. Bedell. I do not believe Dr. Bedell wants to see the connection between sinus infection and optic neuritis. Do not misunderstand me. I do not feel that in all cases of nasal accessory sinus infections that we should do a sinus operation for these conditions, until we have ruled out all of these other factors. And if we have failed to examine the patient for the other things that might cause this condition, then we have fallen far short of what we should know in regard to the eye and nose.

OTOSCLEROSIS*

JAMES A. DOWNING, M.D., Des Moines

Otosclerosis is described as a chronic, progressive, non-infectious disease of hereditary nature or at least having a familial tendency, ordinarily occurring about puberty or early adult life, and involving especially the lateral walls of the bony capsule about the labyrinth, particularly the cochlea and leading to extreme loss of hearing. Pathologically the otosclerotic foci show areas of ab-

*Presented before the Seventy-Seventh Annual Session, Iowa State Medical Society, Cedar Rapids, Iowa, May 9, 10, 11, 1928, Section Ophthalmology, Otology and Rhino-Laryngology.

sorption of the bony capsule leaving very large hollow spaces freely permeated by pathologically enlarged vessels, with a dense network of connective tissue between the bone and vessel walls. This absorption and proliferation causes pressure and obliteration of the labyrinthine interior, secondary compression and death of the functioning mechanism, obliteration of the window niches, and ultimate fixation of the stapes and acoustic atrophy.

The early diagnosis of otosclerosis is extremely difficult. The early symptoms will vary considerably with the area of the bony capsule involved with an extreme variation in the early symptoms. However, as the disease progresses, in practically all of the cases the stapes becomes fixed and the same classical symptoms will be elicited and the typical Bezold's triad obtained, namely, loss of low tones, increase of bone conduction and fixation of the stapes. When the minute size of the area involved in the pathological process is considered, it is not unreasonable to expect variations in the early manifestations.

We are dealing with the most highly specialized osseous tissue in the entire human mechanism. This bit of osseous tissue differs entirely from all other bony structures in that the Haversian canals are proportionally much smaller in caliber giving poorer nutrition and the arterial supply is incapable of change in caliber to compensate for variations in arterial force. Bear in mind, that in the space of less than one-fourth of a cubic inch, is housed the entire acoustic mechanism. This mechanism lies in a snail-shell formation, which, if extended, is less than an inch and a half in length and contains the entire end organ and perception apparatus of the auditory nerve. Picture then, the exceeding minuteness and the microscopic size of this portion of the osseous skeleton. If we also wish to consider the static labyrinth as a portion of the otosclerotic process, we need only to include a cubic capacity of about one-half by one-fourth inches, the greater portion of which is solid bone to include the three semicircular canals. In this tiny bit of highly specialized bony tissue is housed the entire hearing and equilibrium apparatus of the human body.

There is no definite, specific, etiological cause for the disease as far as is known at the present time. The primary exciting factor has been the subject of considerable experimental work and many theories. This disease, as in many of the other obscure pathological processes concerning which the origin is unknown, has had many volumes of theories and tentative explanations propounded but with very little definite knowledge

and tends to fall in the same category with toxic goitre, hyperthyroidism, glaucoma and atrophic rhinitis and such other diseases.

An attempt has been made to cover some of the points that have been raised as to the etiology and to show the trend of some of the experimental work, which has been done on otosclerosis. As far as the hereditary character of the disease is concerned, it seems to be more of a familial tendency than it is true heredity. It occurs more frequently in females and in about the ratio of three to one. Frey is of the opinion that there is a marked hereditary tendency to otosclerosis and that it shows a preponderance in the female with a tendency to become worse at puberty, in pregnancy and the climacteric; that it is influenced adversely by psychic disturbances and that the vaso-motor system is affected and this in turn affects the related ductless glands. He also states it is occasionally found with other abnormalities, such as fragility of the bones and blue sclera, and that patients with otosclerosis show diminished blood calcium. Reasoning from this, he believes that the parathyroid glands probably are at fault. He also found that none of the otosclerotic patients are quite normal and that most of them showed symptoms resembling chronic tetany.

Gradenigo reported recurrence of otosclerosis in more than five hundred families and believed that the disease was transmitted according to the Mendelian law. He states, "that when the abnormal characteristic is dominant, the disease is never latent and is transmitted continuously from one affected individual to another. Among diseases of the ear, otosclerosis presents characteristics of familial transmission and exhibits as a rule properties of a recessive character".

Bezold showed in a series of cases that 52 per cent of the true otosclerotic individuals were from families showing one or more in the same or preceding generation. Drury of Boston demonstrated that in four out of ten, the familial characteristic was present. Whether or not this is a true hereditary pathological process, there seems to be some considerable difference of opinion. However, all authorities agree that the tendency is at least to be transmitted by families. The onset of the disease ordinarily occurs near puberty but may occasionally come on later in adult life. The condition is greatly aggravated in females by pregnancy, particularly the first pregnancy. Granted that this condition ordinarily arises about the age of puberty, a tinnitus may be the first indication of some involvement of the ears. The onset may be very gradual and insidious and the

individual make no complaint of the loss of hearing for a number of years until the diseased process has reduced the hearing to a half or two-thirds, and it becomes apparent in ordinary conversation or the loss of one functioning ear may be accidentally discovered as in routine examination. This may throw the history of the known onset up around the early twenties or possibly the early thirties. The process usually involves one ear primarily and this condition may progress to a considerable loss of hearing before the second ear is involved. Ordinarily, where the first ear becomes arrested and the second ear becomes involved, a better resulting hearing is retained in the first involved ear, or to state it differently, the ear which has been involved last loses a greater proportion of its hearing. The tinnitus usually increases in severity throughout the progress of the disease and later on, if the region about the external horizontal, semi-circular canal becomes involved, the patient begins to complain of dizziness. The amount of dizziness will depend upon the amount of involvement in the vestibular apparatus itself.

Very rarely does the vertigo progress to the point where the individual is incapacitated for ordinary every day life. Very rarely is the superior vertical canal involved, but, if so there is corresponding increase in the dizziness and vertigo.

Early in the disease the low tones are lost, but the loss of the higher pitch remains as part of the pathological change which occurs late.

Both absolute and relative increase in bone conduction are present, providing the stapes is attacked early and there is fixation in all or part of the stapedial articulation. If the involvement is around the oval window, fixation of the stapes will occur at an early date; if the involvement is around the round window, fixation of the stapes will not occur until later on in the disease and increased bone conduction will not be one of the cardinal symptoms and it will be necessary to make a differential diagnosis between an otosclerosis and a primary involvement of the internal ear or an acoustic neuritis itself.

Later in the disease with the degeneration in the cochlea, bone conduction tends to be shortened and there may be not only relative but an absolute loss in bone conduction. At no time in the disease, however, is the increase in bone conduction as great as may be obtained by the water filling test in a normal ear.

Later in the disease the Gelle Test and the Rinne Test will be found negative depending, of course, upon the degree of the ankylosis of the

stapedial articulation—the negative Rinne holding true in the higher pitches, also in contradistinction to a middle ear sclerosis where the upper limits usually show positive Rinne.

Ordinarily speaking, by the time a patient presents himself for examination on account of an otosclerosis, his hearing function for the spoken voice is ordinarily poor. However, it will be found that he may retain practically good hearing for musical tones; that his hearing is capable of being amplified by the ordinary types of amplifiers; that he is able to use the ordinary portable telephones to good advantage; that he hears well over the telephone and that his conduction over the radio is very good, providing he uses the head set.

Characteristic voice changes usually take place—the voice is ordinarily flat, of a monotonous character, rather low pitched with a lack of resonance and of poor volume. He may complain also of a paracusis willisi consisting of a symptom complex described by the patient as being able to hear better in a noise than in a quiet place. This is a relative rather than a true increase of hearing in the presence of noises.

Knudson and Jones carried out some very painstaking experiments to determine whether or not patients with paracusis actually heard better in a noise, and, if so, to what extent. The results of their experiments tend to show that the loss of hearing in a noise is an absolute one, whether the individual tested be one with normal hearing or whether he has defective hearing with paracusis. The individual with paracusis suffers less impairment of his hearing in a noise than the individual with normal hearing because most noises and gross sounds are of a low pitch. The individual with fixation of the stapes or severe immobilization of the conducting apparatus has already lost perception for low tone. Hence, the presence of the low tones does not embarrass his hearing to nearly as great an extent as it would the individual with normal hearing. So, he enjoys a relative advantage over the individual with normal hearing and is lead to believe that the vibration and outside noises really improve his own sound perception.

Knudson and Jones summarize their results as follows: "The results of experiment tend to show that the paracusis does not hear better in the presence of a noise; he hears less well in the presence of a slight noise and his hearing is more and more interfered with as the loudness of the noise increases. The evidence indicates that all individuals hear better in the quiet than in the presence of the noise. The paracusic has a rela-

tive advantage over the normal or individual with perceptive deafness, in the presence of a noise." The experiments and deductions of Krantz also bear out the same findings.

This series of symptoms and pathological changes occurring with a perfectly normal appearing ear without scarring of the drum membrane, without adhesions, without any middle ear disease, gives a definite diagnosis of an otosclerosis. There is only one pathological finding in the middle ear in the case of otosclerosis and this is a variable condition, which may or may not be present and consists of a blushed or reddish spot as seen through the drum membrane in the region of the promontory, due to a dilatation of the blood-vessels in the rarifying and absorbing bone. If, however, the pathology is complicated by middle ear disease, the diagnosis is much more difficult and it is absolutely important to exclude other conditions, such as middle ear adhesions, chronic so-called middle ear catarrh, eustachian closure, internal ear disorders, etc., and the presence of such findings complicate very greatly the nicety of diagnosis.

Difficulty in treatment of cases of this kind result from the same conditions that prevent early diagnosis, that is, prior to the fixation of the stapes, cases of otosclerosis are diagnosed with difficulty and after fixation of the stapes, treatment is of no avail except to arrest the further progress of the disease. The problem, then in otosclerosis is to get the early cases with accurate data; to be able to follow them for a sufficient length of time and to administer whatever type of treatment is advisable in order to obtain accurate scientific data.

It is a well known fact that family characteristics show numerous osseous changes, irregular teeth, slender bones, so-called adenoid facies, characteristic facial expressions, which develop from the bony skeleton itself, so it is not to be wondered at that there should be some familial tendency in the development of the temporal bone. If it is possible to have hereditary long noses and large mouths and irregular teeth, so it should be perfectly possible to have hereditary defects through inferior development of the osseous labyrinth.

Eckert-Moebius, a German investigator, has shown "that in the third and fourth embryonal months, perichondrium sprouts, in the form of regularly formed cartilage vessel systems, push into the thicker layers of the still cartilaginous labyrinth capsule, and, there, starts enchondral cartilage growth centers. They remain separated

for a long time from the bony development, growing inward from the surface, and show definite histological evidence of a more or less incomplete ossification. The labyrinthine capsule shows the following cartilage canal systems; one in front of the oval window; second, in the corner between the internal meatus and the base of the cochlea; third, in front of the round window and streaming into the niche from the floor of the middle ear". These correspond with the commonest site of otosclerotic changes and otosclerosis develops in those areas which most frequently show later incomplete ossification and he argues that these otosclerotic areas are related to definite vessel arrangement and are not in the nature of tumor formation. He states "that otosclerotic subjects show constitutional inferiority as indicated by blue scleras and fragile bones and suggests three components in the explanation of otosclerotic areas. First, constitutional, that is, disturbance of the mesenchyme, probably secondary to those of the internal secretions having a hereditary basis. Second, local; in the borderland between the primary cartilage cells and the secondary bony vessels, poorly vascularized, biologically inferior, metabolically unstable bone in the known predilected site of otosclerotic changes. Third; exciting components; general and perhaps local metabolic disturbances, peculiar to females and adolescence, giving rise to the step like course and the aggravation during pregnancy noticed in the clinical picture of otosclerosis."

Another German investigator, Edward Gimpinger, states that "the histology of bone changes in the labyrinthine capsule in otosclerosis has been made clear by a great number of investigators. Only the explanation and the evaluation of the data furnish fundamental findings, which cannot be solved by histologists. The relation of the local to the general condition of the individual comes to the fore in considering the disease."

Mayer assumes that embryonic tissue malformations are the cause of the blastoma like character of the focal disease. He believes that these early changes are the foci from which hyperplasia and exostosis develop. Comparing these phenomena with the conditions which arise in other skeletal tissues, not uncommonly effected by exostosis and hyperostosis but which often have a congenital incidence, and like otosclerosis have a definite familial history and can be inherited, he believes that the formal and ultimate development of otosclerosis is clearly one of congenital maldevelopment, and that there was a definite similarity between otosclerosis and the otitis deformans of Paget, although the lesions of oto-

sclerosis are much more focal than the changes in otitis deformans.

Brunner and Fischer produce proof concerning the correctness of the opinion that an inferiority of the hearing organ exists in otosclerosis and that the inferiority of the hearing organ is only part of the general inferiority. Brunner describes microscopic changes in otosclerosis and gives a resume of the current theories of the etiology. He states "that Manasse thinks that the primary change is the formation of new bone around the vessels." Siebenmann holds that the primary change is absorption of bone by old osteoclasts. Wittmaack holds that the changes are due to venous engorgements, the origin of which is undetermined.

Brunner, himself, "believes that the condition is due to metabolic changes caused by the endocrine glands, and the reason that these changes do not occur in other bones, is, because the petrous bone is the only entity in which the chondroid bone of infantile type persists throughout life". Bauer and Stein showed in otosclerosis "the constant occurrences of a number of defects of development and signs of degeneration, and that the focal disease can be accompanied by constitutional diseases, which can be shown to be hereditary either as such or in alternations".

Gray believes "that otosclerosis is a developmental variation and that such variations are most likely to occur in organs, which are of comparatively recent origin, such as the cochlea, in contradistinction to those which are of old development, such as the vestibular apparatus. For this reason, the margin of the oval window, the foot plate of the stapes and in some cases the nervous structure of the cochlea are affected, while other parts of the labyrinth are unaffected".

Fraser believes "that otosclerosis is a congenital weakness of mesoblastic tissue"; he states "that the labyrinthine capsule, the long bone and sclerotics arrive from the mesenchyme". Cleminson is also of the opinion that otosclerosis is an evidence of a degenerative condition of the mesenchyme from which the bones and fibrous tissues of the body are developed.

Gimplinger states "that the constitutional nature of otosclerosis should, at least, be considered in the sense of constitutional inferiority of the mesenchyme."

Let it be assumed that in persons suffering from otosclerosis the focal disease is only a manifestation brought about by causes still unknown. Granted then, that we have an inherently congenitally weak cochlea, what is the cause of the

breakdown, which comes around about puberty or later on in life? There are a number of factors to be considered. First: Calcium metabolism. Second: The endocrine chain of glands with their internal secretion, and third: The control of the endocrine gland itself by the sympathetic nervous system.

Warwick and Stevenson raised the question as to whether a change in calcium metabolism due to endocrine disturbance would not be the cause of formation of new bone in otosclerosis. They demonstrated the well known fact that the anterior lobe of the pituitary and the thyroid gland controlled calcium metabolism and that the ovarian secretion inhibits both the thyroid and the pituitary, thus indirectly influencing calcium metabolism. In pregnancy, the action of the ovaries being depressed and its inhibitory actions removed give rise, in their opinions to the acromegaly of pregnancy. Their inference is that the otosclerosis of pregnancy has a direct relation to acromegaly of pregnancy; they also demonstrated the hypertrophy of the pituitary in pregnancy, thus when the function of the ovary is depressed and there is a resulting secondary hyperfunction of the pituitary, there is an increased calcium assimilation. Reasoning still further, they assume "that the osteomalacia of pregnancy occurs when the supply of calcium needed for the increased calcium metabolism is insufficient, and the bony skeleton is called on to yield calcium. The osteomalacia and otosclerosis are alike in many respects, that is, that there is an absorption of the already present bone with a dilatation of the Haversian Canal and a secondary laying down of hard dense bony structure with large interspaces. After pregnancy, when the urgent need for such calcium has been removed, the hyperfunctioning pituitary keeps the calcium at a high level for weeks, most of which is excreted but some may be deposited in the bone from which it has been previously removed"; this, according to their statements, accounts for the secondary deposits of bone in otosclerosis.

These calcium deposits occur in the points, pointed out by Moebius and Gimplinger, as previously stated, that is, around the oval window, around the round window and near the junction of the horizontal canal where the embryonic islands of cartilage remain.

Rowe, Drury of Boston, and other collaborating investigators have done a very considerable amount of work on the endocrine disfunction in otosclerotics. Rowe says, "granted the constitutional tendency, other and non-endocrine regulators of metabolism, may exhibit disturbed func-

tion and produce the same result". But roughly speaking, he found two out of three otosclerotics exhibiting an endocrine background; the other one is rigorously non-endocrine. In this connection only a small percentage of cases showing endocrine disorders develop otosclerosis as non-comitant or resultant defects. Rowe on the discussion of metabolism tests points out "that most of them are based on the assumption that a single definite function of the human body is regulated by a single group of cells. This is basically incorrect as it has been demonstrated that the vital function tests are not specific. No one test alone is adequate to establish a diagnosis. For example, the practise of returning a diagnosis of hypothyroidism on a single observation of basal rate measurement some 20 per cent below the calculated normal is wholly misleading. True, a moderate thyroid failure will produce a drop in the basal rate of this magnitude but equally a functional failure of the ovary or of the anterior lobe of the pituitary and among non-endocrine entities, a partial inanition will produce an equivalent level".

Rowe found it necessary to undertake a considerable amount of experimentation in order to arrive at a so-called normal individual, and to establish the endocrine level, studying not only groups of so-called normal individuals but also concrete and demonstrable pathological conditions, which had been produced by surgical operations, in an effort to eliminate fallacies, which might arise from more than one function of any one particular gland. He demonstrates that the thyroid gland exercised the most influence on the metabolic rate with the pituitary gland coming second. Also, he established the fact that sugar tolerance was greater in the female than in the male, and that oophorectomy lowered the threshold of sugar tolerance in the female to the level before puberty. He also ascertained that in the male, the testicle did not exercise any particular influence on sugar tolerance. These conditions he regarded of great diagnostic importance. Rowe regards endocrine therapy as specific and that a case of otosclerosis due to deficiency of the thyroid will not be benefited by pituitary medication, and, one that is due to deficiency of the pituitary will not be benefited by thyroid medication.

Drury gives 68 per cent of otosclerosis having an endocrine background. He divided this group into 36 per cent for pituitary disfunction; 16 per cent for thyroid disease and 15 per cent for gonad's insufficiency. He states "that one-third of his patients give neither subjective nor objec-

tive evidence of any endocrine disturbance. Of the residual two-thirds endocrine foci have been more or less definitely incriminated and severally include the thyroid, the pituitary and the gonad. The absence of the adrenal cases from the group may as well be ascribed to the paucity of the cases presenting disease of these organs as to a failure of their influence, analogous to that established for the other ductless glands." Drury concludes "that the endocrine influence is an indirect and non-specific one. It would seem to be established that many and widely divergent factors can excite the appearance of otosclerosis in a predisposed person; the essential factor underlying a morbid change is possibly a chemical one effecting the nutritive stability of developing and fully developed bone and cartilage. In a dominant percentage of cases the several endocrine glands are direct etiological factors through their influence on normal metabolism. In cases of otosclerosis without some ankylosis of the foot plate of the stapes, or other irreversible organic changes, response to the proper glandular treatment, may be expected with reasonable confidence. The constitutional tendency or hereditary influence would seem to be a dominant factor in determining the condition of otosclerosis where an endocrine or non-endocrine pathology produces disturbance of metabolism."

Both of these observers agree that the hypofunction of the glands is found to be the greatest etiological factor. Their observation was, that if the cases were taken early their response to treatment was the least with the gonad group, and consensus of opinion of the investigators was that when family history suggested possible otosclerosis, children should be carefully watched through the early period of puberty and in the young adult life for developments of endocrine disorders with possible disturbance of the hearing function, and that it was from families of this type and intensive experimental work, that progress has been made and will be made in the diagnosis and treatment of otosclerosis.

The question of the sympathetic nervous system and its influence on the endocrine group seems to be one with which nobody cares as yet to make any definite statement. Delie states "that the developmental fault in the labyrinthine capsule is caused by errors of blood supply, which in turn is controlled by the cervical sympathetic system. Paresis of the cervical sympathetic system causes dilatation of the blood-vessels, slowing of the circulation and malnutrition of the parts supplied. Sympathicotonia or hypothyroidism causes hypertension of the vessels and diminution of nu-

trition. The suprarenal glands raise the blood-pressure but the action of their secretion is balanced by the action of the thyroid which lowers vascular tension." He further describes the appearance and characteristics of otosclerosis, calm temperament, slow sluggish mentality, dry skin and likens them to those suffering from hypothyroidism. He concludes, after reviewing the conditions in regard to endocrine balance at puberty, during pregnancy, like patients, after castration or oophorectomy, that otosclerosis is the result of hypothyroidism.

Muck, the German investigator, has conducted some experiments on sympathetic hypertonia in pregnancy and has found that 72 per cent show hypertonicity in the second month of pregnancy, dropping to 22 per cent in the fourth month. Whether or not this condition has any bearing on endocrine disturbance seems to be still open for further discussion.

Does it not seem then possible, that we have at times a particularly vulnerable cochlea on which some disturbing entity works, which seems to be allied to the causative agent of otitis deformans or acromegalia, but which exciting factor is not sufficiently virulent to cause other bony changes in which the general osseous skeleton is involved. May it not be probable that this pathological substance, which in an attenuated degree would not effect a normal cochlea, is of sufficient virulence to attack an inherently weak, highly specialized bit of osseous tissue and by its giving lead to the changes as seen in otosclerosis.

If we accept the findings of the numerous independent investigators, that at the site of the pathological change and the new bone formation in otosclerotic ears there previously exists islands of cartilaginous tissue, does it not seem probable that we are beginning to make some progress in the etiological factor back of otosclerosis.

Much remains to be learned and a great deal of care and experimental work must needs be done, but it does seem that the gateway is at least open through which investigators may pursue their research and ultimately find a means of prevention and arrest if not a cure of this condition, which leads to such extreme loss in the hearing function.

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Discussion

Harold J. McCoy, M.D., Des Moines—I felt rather incapable of discussing a subject such as this after having it so well expressed to you. It covers practically all of the literature and as you know it has been rather a vague and neglected subject which has been stated in the paper. The pathology shows excessive bony changes in the labyrinth, especially the cochlea involving the capsule. Small bony processes about the size of a lentil are seen about and on promontory near the recess of the fenestra vestibule. They are distinct by being pale yellow or reddish in color. In some cases the fenestra vestibule is nearly obliterated and the stapes tightly immured in the narrow recess, also the promontory thickened and the round window reduced to a cleft in others. Most cases show no middle ear changes, yet some few show changes similar to adhesive otitis media. According to Politzer, the decalcified specimens showed many variations in the pathological changes. Many cases showed changes as above mentioned. A number showed new bony formations involving the labyrinthine capsule. In short then, the pathology as far as we know it in otosclerosis is: (1) osseous new formation; (2) atrophy of organ of corti; (3) atrophy of acoustic nerve in the cochlea and the ganglionic layer in spiral ganglion; (4) atrophy of organ of acoustic nerve. One thing we are concerned about is whether we are dealing with an adhesive type of otitis media or otosclerosis. Many of these cases examined by Politzer showed no change in the middle ear in so far as pathology was concerned, yet there are some that do. Microscopic examination according to Politzer showed new bony formation in the labyrinthine capsule. Osteoblasts and osteoclasts were numerous. Politzer and others believe that otosclerosis is a primary affection of the labyrinthine capsule, while some others believe it to be an extension from a middle ear process. Maybe, at least, it is reasonable to believe that separate and distinct pathological processes may be present in the same case. Many cases have the one without the other, etc. The causes of such changes are numerous, such as diminished blood supply, etc. (Gray). Regarding the etiology, it has been brought out that the hereditary character of the disease is more familial in its tendency; abiotrophy which means that certain tissue, in this case the bone surrounding the internal ear, has not the vital force to sustain its function throughout the life of the individual, therefore, accounting for the degeneration in otosclerosis. It has been stated that this trouble comes on at adolescent age. If this is the case we must not have a great many cases of otosclerosis

for most of our deafness comes on or is present in later life. We have the otitis deformans type, where some people are subject to these bony changes which may occur in certain individuals in the ear as well as changes elsewhere in the bone, and the cause is unknown. It may be something in the early life of the individual predisposing him to these changes. Rarefying formations of bone, deposits of new bone, mean nothing more than an attempt on the part of nature to rebuild or repair a destructive processes from any cause. I have never been satisfied in making a definite diagnosis of otosclerosis for the reason that it appears to be rather indefinite. The American Otological Society of New York are devoting their time to the research study of these otological changes. Last year our Society in Des Moines was confronted with a pledge to help this work and we are to receive the literature on the research done. As yet we have not heard anything.

J. A. Downing, M.D. (closing)—As to the time when this condition comes on, whether or not it starts around the age of puberty and then gradually progresses, is difficult to state. We all know persons with but one hearing ear and it seems to cause them very little annoyance. A great many hearing defects were detected in the recruiting during the late war and many were found with but one hearing ear and entirely unconscious of their defect. The American Otological Society has started a great work which will be perpetuated for several generations and eventually their data will be of great value.

A STUDY OF THE ORIGIN OF NASAL DEFLECTIONS*

H. M. IVINS, B.S., M.D., Cedar Rapids

When I graduated at Iowa in 1908, corrections of the septum were made generally by doing the Ash or Gleason operation or in case of a spur it was removed by a nasal saw. All of which methods, I believe, have been discarded.

My introduction to the submucous resections operation came when I was visiting some clinics in Chicago. I met and came in personal touch with Dr. Freer. He explained his idea, showing me wet and dry specimens and gave me a very careful explanation of his technique, so that when I came back to Cedar Rapids, I came equipped to try my hand at submucous resections. This type of cases has caused me to realize that a great majority of nasal troubles, obstructions and sinus infections were due to malformed septums and created within me a desire to know more about the formation of the septum.

Most papers written on this subject discuss the

cause of deviations. But I wanted to see for myself what I could find out, so I went to Iowa City and asked Dr. Prentiss to help me and he did. Now, before I discuss the subject and at this particular place I want to say just a word about the special research laboratory that Dr. Prentiss, after many years, has been able to put in working order. Dr. Prentiss has been collecting material for a long time, and has had no place to show or use it, but now in the new medical building he has space and anyone going there today to study will find an abundance of material and what is best of all, a hearty welcome.

Now, I wish to refer to the literature and to discuss what I found in studying "The development of the nasal septum". Dr. Schaffer says: "The nasal septum during fetal life and infancy is generally symmetrical, and in the middle sagittal plane. Asymmetry occurs after infancy and about 80 per cent of adults have some deviations." Dr. McKenzie made a study of two thousand skulls and found 77 per cent had deviated septums. Other observers report percentages varying from 53 per cent to 96 per cent. The difference in percentage probably being due to a slightly different idea of what constitutes a deviation.

Some writers, I believe, have concluded because of this high percentage, that a great many deviations coming in later life must be due to trauma. This we believe has no foundation in the facts. Some, of course, are due to trauma but this is not at all general.

Both Dr. Schaffer and Dr. McKenzie among others mention and discuss the facial angle cause. It has been demonstrated that there are more deviations in the highly civilized races than in the Ethiopian races, the theory being that the facial angle is crowded and narrowed by the increased size of the brain in the higher types. This narrowing of the facial angle makes the nasal box smaller and the growth of the cartilaginous septum is not arrested soon enough to prevent it growing too large to fill the nasal space, and is therefore forced to bend or wrinkle.

These studies were made on a large number of skulls by Dr. McKenzie and he states that the higher types show a definite narrowing of the facial angle. I wish to specially note this because, in my judgment, it conforms very nicely with what follows.

Now, in order to get the history of the growth of the septum, we must study the embryology and anatomy.

Let us say that the nasal cavity is a triangular box, within and formed by the two halves of the superior maxilla. From the center of the apex

*Presented before the Seventy-Seventh Annual Session, Iowa State Medical Society, Cedar Rapids, Iowa, May 9, 10, 11, 1928, Section Ophthalmology, Otology and Rhino-Laryngology.

of this triangular box, springs the perpendicular plate of the ethmoid. The base, bounded below by the hard palate of the superior maxilla gives rise to the crest, which unites with the vomer, thus forming the bony part of the septum, after its union with the perpendicular plate above.

In considering the embryology we quote from Dr. Piersal and Dr. Schaffer, considering the ethmoid bone first. We find two lateral masses and a mesial plate or perpendicular plate. The mesial plate extends from the sphenoid posterior to the tip of the nasal process anterior. It is cartilaginous throughout its entirety at birth, and the lower part persists as the triangular cartilage. While the upper part ossifies and becomes the bony lamina perpendicularis. The ossified lateral masses form the ethmoid labyrinth.

Ossification of lateral masses begins about the fifth or sixth month of fetal life. The perpendicular plate begins in the first year of post fetal life, almost a year after. (We will show a slide showing this). A union of the lateral masses and perpendicular plate is made about the fifth or sixth year, with complete ossification, sometime between the fifth year and puberty.

Ossification of the facial bones begins about the fifth or sixth month of fetal life and is very well marked at birth, but not complete until about puberty. Ossification of the vomer begins early, there being evidence at the end of the second month of fetal life by two single centers, one on each side near the base of each of the two plates that form the vomer. These centers enlarge and extend upwards. Ossification is well marked at birth but not complete before puberty. This bone is formed by the two distinct wings growing together eventually, but for a long time having a deep groove in the upper edge as I will be able to demonstrate in a slide. You will note in this part of the septum how slowly the ossification takes place, while in the facial bones ossification is well marked at birth.

I will present slides that will, I believe, show that what has gone before is true, also that the septum is largely cartilaginous through the greater part of its growing period, at least up to fifteen or sixteen years, while the bones of the face are well ossified at the fifth or sixth year.

It would seem that growth of cartilaginous tissue is influenced if not entirely arrested by ossification. Thus there is a tendency for a longer period of growth in the cartilaginous septum than in the facial bones. If the period of growth produces a cartilage too large for the nasal box this cartilage of necessity, must knuckle or slide by the line of union. If it knuckles we may have a

bowed out condition or a sharp trough-like deflection, but if it overrides it leaves a ridge or spur. This, then, considered in relation to the theory of the narrowing of the facial angle, surely explains a large number, if not the majority, of septal deflections.

While examining a school of about one thousand students, over a period of three years, a very striking impression was made upon my mind in regard to the nasal conditions. I was not aware of the facts, but after the first examination I seemed to realize that there were not many nasal deformities in the kindergarden children, but I did see many in the high school age. The next year a closer observation revealed that the evidence of beginning deviations were present in many cases of the kindergarden age, and as I went up the grades, observing the advancing ages, they became more marked in number and development. It was also possible to tell in many cases what form of deviations this evidence would take when it had completed its growth.

Dr. Carl Seiler back in 1888 wrote a fine paper on this subject in which he said he could not accept Dr. Bosworth's statement that these nasal excrescences are due to trauma but he believed that many were due to overgrowth of the septum. He had a theory that seems to hold good in certain types. He believed that pressure, no matter how slight but being constant would eventually cause irritation, congestion and finally an enlargement or overgrowth at the point of contact. This perhaps accounts for the thick bulbous type of cartilage that often is found high up between the lateral masses, where there is apt to be considerable pressure over extended periods of time. In this same connection Dr. E. F. Parker says, spurs are true inflammatory growths due to plastic infiltrations and are found along sutural lines, while deflections are knuckles in the cartilage mostly.

I wish to call attention to one type of spur that I have not seen mentioned in the literature. It is found at the junction of the vomer, and perpendicular plate. The perpendicular plate should form its union with the vomer by resting in the groove, as I will show in a slide. However, I have a specimen at one year which shows that the perpendicular plate came in contact with and united with one lip only of the vomer, leaving the other edge free, and with a tendency to grow at right angles to the septal plane. It shows the development of this free edge into a shelf or spur along the entire length of the vomer, being much more pronounced as a general thing, at the posterior end next to the sphenoid. If you will care-

fully examine a certain spur that appears at the union of the vomer and perpendicular plate you will sooner or later see this type.

I have made no attempt to classify deviations as this is a discussion rather of causes. However, it seems to me we find the septum, which is largely cartilaginous for a long time, forced out of a straight line because it is too large for the cavity which it is supposed to divide. The deviation may occur at the meeting edges of the crest with the vomer, or vomer with perpendicular plate or both with the cartilage. It may be a bending of both bone or cartilage, or it may be an over-riding or a malformed bony growth from the lip of the vomer. The important thing in this connection is where it is located and what it produces, not what it is called, and most important of all, is that it should be entirely removed when operated upon.

I would like to show you a few slides that seem to me to have some significance and hope you will be able to see them and follow me in my ideas.

Number one is a picture taken from a skull at term. You can see the lateral masses but no perpendicular plate is present. The plate has disappeared, being cartilage and was destroyed in the solution, while the skull and lateral masses remain in place. This demonstrates quite clearly that the early bony cavity into which the cartilage must fit is a hard and quite well formed bone, while the perpendicular plate is cartilaginous and does not stand the solutions for cleaning the bones. This may be the reason why the perpendicular plate continues to grow until ossification or pressure arrests its growth, and in many cases, overgrows and must bend or override.

Number two is a picture of the vomer at term showing the two wings of which it is formed, and the rather large and deep groove into which the perpendicular plate sits. As ossification goes on and the perpendicular plate comes into this groove the wings seem to grow together, and in some instances it is a straight and very thin bone. However, you can see here how wide apart these two wings may be and how easy it would be for the perpendicular plate to come in contact with only one side, leaving the other wing free to develop until ossification stops its growth.

Number three shows the vomer attached to the maxillary crest in a specimen at term. It shows definite ossification and you can see the groove which is not so wide nor marked as in the previous slide, and it seems to me one would hardly expect much of a spur to form in this case. This

also shows the ossification of the superior maxilla in a fairly advanced state.

Number four shows the vomer again in a specimen at term. Attached this time to the sphenoid which is in a definite state of ossification. Ossification has taken place in the vomer, and the groove shows distinctly. The vomer would seem to be more nearly normal. The groove is narrow and has no flare of the superior edges. There would seem to be no chance for a spur here.

Number five is very dark and may be those far back cannot see, but this shows the vomer with its groove set in a mature bony box. I am sure you can visualize what would happen if an oversized cartilaginous septum were forced into the groove.

Number six shows a mature specimen with a gracefully curved septum; complete ossification with the perpendicular plate in place. You can see a projection posterior that is the flaring out of the right wing of the vomer making a large spur, the left side shows smooth. You can likewise see where the perpendicular plate joins the vomer.

Number seven shows a specimen that at one time would have been called a spur and probably a saw would have been used to take off the ridge. To me, this is a deflection where the perpendicular plate unites with the vomer. For lack of room it has pushed the vomer over into the left side. The union was firm and perfect but the perpendicular plate continued to develop to such an extent that it has doubled over, approximately to a right angle, the doubling coming in the thin part of the bone. At this particular angle one would have to have a sharp dissector, but it would be necessary to remove this deflection down to the maxillary crest.

Number eight shows a specimen in which the perpendicular plate rests upon the vomer. The vomer is very much bent on itself. It shows the groove where the triangular cartilage rests and how the three bones have made their union without any spurs or overriding, but the weak spot proved to be in the vomer at its union with the maxillary crest. I can see no reason for this condition except that there was not room and something had to deviate, that would naturally be the softer tissue.

Number nine shows a specimen in which the vomer is about twice as thick as the perpendicular plate, the perpendicular plate resting on the left lip or wing of the vomer, and you can see the beginning of a deflection. The specimen shows a marked ridge which is much wider at the posterior end of the vomer.

Number ten shows a dried specimen at one year in which the whole septum is present, bone and cartilage. The perpendicular plate and triangular cartilage show no demarcation, it being quite cartilaginous at this particular period, while the vomer and maxillary crest show white and bony. One of the principal things I wish to show is that, where the perpendicular plate attaches to the right wing of the vomer leaving the left wing free and projecting out at right angles into the nasal cavity making a shelf or ridge, a very definite spur develops. We much remember this is at one year, and this bone does not stop growing for several years yet, so that by puberty this spur may be very large.

Number eleven shows a completely ossified septum. Nothing special except to point out the different parts of the septum and their relation to one another.

(a) Suture between maxilla crest and vomer.

(b) Attachment of vomer to sphenoid.

(c) Suture between vomer and perpendicular plate. At this union there is a deflection of the bones into the left side.

Let me say in conclusion that I set out to study the embryology and anatomy of the septum, and its relation to the conditions found in many adult noses. These I found interesting and believed the findings were worth repeating. I have not intended to prove anything, but to my own mind, I find that ossification starts early, and is well advanced at birth in all bones surrounding or coming in contact with the septum proper, while the septum is cartilaginous very much longer and in fact part of it never does ossify. Also we see the hand of evolution working out its course, but the adjustment has not been perfected.

We have a definite picture of a spur formation which causes a world of trouble, and has been solved by the submucous resection.

Discussion

J. C. Decker, M.D., Sioux City—In the first place I want to congratulate Dr. Ivins on the splendid paper which he has so ably presented and which shows so much painstaking work and research. I have thoroughly enjoyed hearing this presentation and do not feel that I can add a great deal to what he has said. I was taught, a number of years ago, that deviations of the septum were either traumatic or developmental in origin. If developmental, any portion of the septum may be involved, whereas, if traumatic in origin only the cartilaginous portion is involved as a general rule. Bosworth has pointed out, that an injury to the nose need not cause an immediate deformity but it may set up a low grade inflammation which, in a number of years, may result in an obstruction, thickening and deformity

of the septum. At the meeting of the American Academy of Ophthalmology and Oto-Laryngology in Chicago a few years ago, Dr. H. P. Mosher asked how many of us had seen adults with a perfectly normal septum and later, on examination, found a marked deviation. I am sure we have all seen such cases. I think however, that Dr. Ivins has shown very conclusively that at least a large proportion of these deviations are due to an incoordination in the development of the bones and cartilage of the nose. One factor he has not mentioned, is the high arched palate which I have always felt was a prominent factor in the production of these deviations. I saw within the past two weeks a child of seven years with the highest and narrowest arched palate I have ever seen and with a deviation that completely blocked one side of the nose. (There was no history of trauma.) I cannot help believing the Gothic arch of the palate was the etiologic factor in this case. According to Freeman, it is common to find the Gothic arch associated with deviated septa. He reported that in 302 cases of high arched palate 290, or 96 per cent had deviated septa. As the Gothic arch is naturally present in infants it is easy to believe that anything which interferes with the development of the skull will prevent development of the hard palate and its consequent descent. I would like for Dr. Ivins in closing, to tell us what his investigations have proven to him in regard to the high arched palate as an etiologic factor.

Dr. H. M. Ivins (closing)—As regards the high arch, you will notice that my paper is rather limited to the development of the septum, however, there is not much doubt but that the high arch plays its part and this phase is covered pretty well in the literature. In reference to removal of all the septum, I meant all the deflection should be removed. None of the septum should be removed that is not deflected. One of the troubles I find with this operation is that often times the operators do not take out a sufficient amount. There is a tendency to underdo rather than overdo in the removal of the deflected septum. In some instances perhaps some part was difficult to get out and the operator was fearful of a perforation or fearful of results in a region where he could not see well and did not get it all out. There should be no obstruction after submucous resection. Dr. Prentiss gave me a clue to a new thought—I haven't the data with me but I believe I have it well enough in mind to suggest it to you,—that is in doing a submucous resection you do not remove the covering of the bone or cartilage, in which coverings are found the islands of regeneration so when the two flaps come together the structure that nourishes the bony septum is still there capable of regenerating anew a modified septum. I have noted in some of my submucous resections there is a tendency after the operation is completely healed, to return to the old form, not a complete deflection like the original bone, of course, but a tendency. The question in my mind is whether

or not these cases we do, are not subjects for study after it is taken out. I think there is a lot to be learned yet. I am rather inclined to believe that when some of these operations are not the success we expected when we operated, it is because the condition did not really warrant an operation and when it healed the condition returned as bad as ever. This will not be the case if the deviation is really causing the obstruction and is completely removed.

MODIFIED RESECTION OF THE NASAL SEPTUM*

FREDERICK H. ROOST, M.D., Sioux City

Perforations, when they occur following a septal operation, are always embarrassing to the surgeon and often distressing to the patient.

The submucous operation was popularized in this country about twenty-five years ago by the late Otto Freer. It was a great step forward for nasal surgeons and was much discussed at the time.

It is now a routine and accepted measure for correction of malformed septums by everyone. For that very reason perhaps it is a subject now only rarely discussed and little has been said about changes or refinement of technique since the days of its introduction by Hajek, Freer and Killian, the days of a past generation.

The chief difficulties encountered, these aforementioned authors mentioned, were post-operative perforations, high fractures into the perpendicular lamina and obtaining easy access to severe types of malformed septums.

These difficulties do occur and no modification to make these easier has yet been offered or stressed so far as I am aware.

Occasionally it is profitable to enquire into the well established routine procedures and check them over. What is the present routine method of septal corrections? Have any refinements been introduced or is the submucous resection of older days still the method of today?

I wish to present briefly my own modifications of the operation.

It is generally observed that when difficulties are encountered they are mostly due to lack of accessibility. Angular or irregular deviations, when marked, large hypertrophies or spurs when far back or near the floor, become difficult when space is restricted and separation from attached membrane must be done blind—in other words not under direct vision.

Perforations are most apt to occur when the mucous membrane is unduly adherent on parts of the septum not readily accessible. This was pointed out by Freer, Hajek and others. Killian advocated, should such situations arise, it were better to carefully remove small sections of the septum, thus clearing a path towards the area of difficulty. Regardless of their approach, whether by button hole incision of Killian or crest incision of Freer, all the older operators proceeded to completely separate mucous membrane from septum on both sides preliminary to the actual resection of bone and cartilage.

Either their difficulties were overcome by superior skill or perforations were considered lightly, at any rate speed in performance of the operation became greatly stressed. Without exception they advised removal of the quadrilateral cartilage en masse. The swivel knife was introduced to facilitate this. Foreign operators loosened the cartilage above and below, then tore it out by twisting. Freer considered it important to remove the cartilage in one piece.

In my own experience speed of performance seemed of least importance; avoidance of perforations and removal of all septal obstructions very essential. Also it seemed that a large percentage of septal deformities that fell to my lot promised complications. I seemed to encounter largely very angular septums, scar tissue in membrane, large spurs close to floor, etc. I lacked room and visibility.

To simplify my operation I proceeded rather cautiously. Following the initial anterior incision I elevated the membrane in small sections only removing the cartilage thus exposed piece by piece, always in direct line of vision. This method was followed backward until resection was complete. With the improvement of septal instruments and my own technique, all septum deformities now appear easy of correction and the fear of perforation is absent.

Regardless of the particular type of septum which might present itself I make the initial incision in the mucosa close to and just back of free border of septum on the convex side. This I believe is usual with all operations today. I then cautiously elevate the membrane for a half inch only. Slightly back of initial incision the cartilage is carefully incised and a small area of mucosa on opposite side is elevated, just sufficient to permit of resection of a small piece of cartilage with tip of Struykens forceps. This piecemeal of procedure is followed throughout, the line of separation of mucosa from septum always in full view. There being no obstruction of our

*Presented before the Seventy-Seventh Annual Session, Iowa State Medical Society, Cedar Rapids, Iowa, May 9, 10, 11, 1928, Section Ophthalmology, Otology and Rhino-Laryngology.

vision a difficult area may be approached and dealt with safely and with ease. Removing septal structure as you go provides more space for manipulation of instruments. Shelving exostosis near floor of nose are not disturbed until septal part above same is removed when they can be dissected out in plain sight, and with ample room. Acute angles or depressions in septum are approached in the same manner. Following the initial elevation of mucosa little separation of membrane from bone or cartilage is necessary as this seems to occur of itself before the advancing lips of the Killian-Struykens forceps. No preliminary separation of membrane is necessary on perpendicular lamina and very little separation required with the cartilaginous portion.

This piecemeal method I have described, while eminently cautious, would at first appear to be a very slow method. On the contrary it is a very rapid method, easy of performance and rarely resulting in perforations.

Freer voiced objections to working through an anterior window opening. He held that obstructions far back were difficult to reach through such an opening. His method was an L incision over the crest of the deviation. His efforts to completely separate membrane from septal structure required painstaking technique and great variety of instruments. All I usually require is a scalpel, speculum, double ended dissector and a Struykens forceps. A long DuPlay speculum affords me ample vision and is self-retaining. An assistant armed with a pair of Freer retractors is an advantage however.

Blind dissection about the perpendicular plate, and breaking out sections of it instead of clean cuts, are particularly to be avoided.

Believing that it adds greatly to the comfort and well-being of the patient I always require that they be placed in a reclining position on a substantial operating table.

A moderately firm pack is introduced in both nostrils following the operation and left for twenty-four hours. I have noted no particular effects from the practice but have had a number of unhappy experiences when the nose was left unpacked.

CONCLUSIONS

Piecemeal removal of septum, without preliminary membrane dissection, simplifies the technique and shortens the time.

Areas of adhesion or difficult sections are easily dealt with by first removing the septum around them thus affording free space and direct vision.

The one-piece removal of cartilaginous cartilage does not shorten the time of operation, must be done blind and so in my opinion is not good surgery.

Working with line of separation of mucosa and septum always in full view lessens or entirely removes the danger of perforations.

Discussion

G. F. Harkness, M.D., Davenport—Dr. Roost is to be commended for his paper outlining his technique in the resection operation. Especially so in that it avoids undue trauma in the upper part of the septum. Septal surgery is really only good carpenter work. It causes trouble in a purely mechanical way. The indications for a resection operation are not the appearance or position of the septum itself, but rather the complaint of the patient as to the blocking of the air current, the frequency as a mechanical factor, in causing colds or preventing access to pathological tissues. I think we all hesitate to perform extensive resections before the age of puberty, fearing to effect normal adult development. We do not think that many external deformities result from this operation, but it is surprising how many cases with such post-operative results consult men devoting particular attention to plastic surgery of the face. In high deflections it is necessary to go high in order to get a good functional result. This increases the risk of external deformity; though slight if properly performed, the risk is there. This had better be explained to the patients, and let them decide whether they wish the operation performed. Speed is not essential in operating on the nasal septum. In fact, painstaking care is far more essential. Men speak of rarely taking more than twenty minutes. I am content and feel better satisfied when my average time is at least one hour. When Dr. Ivins spoke of removing all the septum, I wonder if he did not mean only all of the deflected part of the septum. Too much is removed at times which accounts for the so-called flappy septum. Sharp cutting or sharp biting instruments are preferable to any fracturing of the parts. Such fracturing in the high types of deflections may lead to a tipping or dropping of the nose below the nasal bones. I do not condemn, and do use the Ballenger swivel knife, but force should never be used with this instrument. To my mind, no one type of operation is suited to all deflected septi. Each patient demands individual study. The Killian incision may be followed by a pouching or ballooning, with contained serum and slow healing. Posterior incision through the membrane tends to avoid this. Button holing of the convex side, fortunately is not disastrous providing the other side is left intact. Some cases demand the Freer right angled incision. Post-operative care demands the coaptation of the two mucous membranes with the underlying perichondrium and periosteum, but without undue pressure, for twelve hours. Tubes to maintain nasal breathing

have been only partially successful. Coaptation by means of metal splint, covered with gutta percha, or with a thin layer of dental wax intervening has, up to the present time, been the most satisfactory means of accomplishing results. Again I wish to compliment the essayist for stressing the need for care, and the avoidance of undue trauma.

J. E. Reeder, M.D., Sioux City—I find that if a rather long incision is made at the base and with the elimination of packing that a hematoma seldom develops sufficient to give any post-operative difficulty and certainly these patients are much more comfortable than when packing is used.

F. H. Roost, M.D., (closing)—The point to keep in mind is as Dr. Harkness put in words, remember to do it in your own way and the easiest way, do not follow some older authority, if that method is difficult for you. Do a piece-meal resection of the septum if thereby your difficulties are lessened and the danger of perforation reduced.

THE PERIODIC HEALTH EXAMINATION*

T. R. PONTON, B.A., M.D., Gorgas Memorial,
Chicago

Before speaking of the newest development in the science and art of medicine, its extension into the field of preventive medicine, let me recall to your minds some points in its history. Until very recently medicine has been entirely a curative science. At first the means used for the cure of disease were entirely empirical but as time passed the care of the sick became more and more scientific.

Previous to the seventeenth century there appears to have been little thought of the possibility of the prevention of disease. From Jenner's observation that certain of the dairy maids of England, who had become infected with cowpox, were immune to smallpox, probably arose the inception of the idea of preventive medicine. His discovery has developed until smallpox, formerly one of the most dreaded and most frightful of the diseases with which human beings could be afflicted, has now become a disease which is comparatively rare and the manifestations of which are mild.

In passing let me call your attention to the fact that in the United States today, owing to the neglect of this proven means of prevention, we have the second greatest world incidence of the disease. The only country in which smallpox is

more prevalent is India, and the unfortunate feature of this condition is that smallpox is not only steadily increasing in this country, but it is becoming more virulent.

To go back to our discussion of the history of the growth of preventive medicine, the next great step was the finding of the cause of wound infection and the discovery of antiseptics, which by doing away with the fear of infection opened a new era for surgery. Then followed anesthetics, which has saved so many lives through the prevention of surgical shock. Soon after this came the conquest of diphtheria. It is not more than fifty years since this was the most feared disease of childhood. Since that time antitoxin has not only given us the means of curing the disease, but has, through its latest development shown the means of prevention. The mortality from diphtheria, instead of being 50 to 60 per cent as it was fifty years ago is now less than 5 per cent and even this 5 per cent can be eliminated if we take advantage of the toxin-antitoxin treatment for immunization. The most marked known example of the success of this means of prevention is shown by the experience of one of the counties of New York State, which has used the toxin-antitoxin treatment for three years and in that three years has not had a death from diphtheria.

During all this period of development the greatest minds of the profession have been devoting their time and in some cases have sacrificed their lives to the study of disease, seeking to find the cause so that they may work out the cure and the means of prevention. The cause of disease is so elusive and the body in which it works is so complex that progress, rapid as it has been, has seemed all too slow, and at times we have become discouraged. For years, for example, we have been searching for the cause of cancer, yet we seem no nearer its discovery today than we were thirty years ago.

Into this period of research came William Crawford Gorgas at a time when the study of prevention needed all the encouragement that could be given it. We were not only conducting a difficult and dangerous fight against disease, but we were, more than at any time in the history of medicine, maligned by and struggling against the multitude of quacks and cults, which are constantly leading the people on false scents.

William Crawford Gorgas was not a great scientist, but he was a great administrator and he was possessed of indomitable energy. From the beginning of his life he seemed to have been destined to be the foe of yellow fever. As a young man, when stationed at an army post on the Rio

*Delivered before the Austin Flint-Cedar Valley Medical Society Meeting, Mason City, 1928.

Grande, he contracted the disease and was immune for the balance of his life. Thus equipped he made his first great stand in Havana. In this fight owing to the falsity of the premises from which he was working, he was unsuccessful. At that time it was believed that yellow fever was due to lack of sanitation, and certainly Havana, previous to 1898 was as unsanitary as the wildest flight of imagination can possibly conceive. Gorgas made it a sanitary city and was rewarded by the greatest epidemic of yellow fever that Havana had ever experienced. This was due to the fact that, the city being clean and therefore thought safe, there was an influx of Spanish and American population who had not been protected against the disease and who furnish a very fertile soil for its growth. This epidemic aroused the American authorities and the Walter Reid Commission was sent to investigate conditions. They proved that Findlay was correct in the theory, advanced in 1881, that *Stegomyia*, one of the mosquitoes, was the means by which the disease was transmitted and that only by the abolition of this mosquito could the recurrence of epidemics be prevented. Gorgas undertook this difficult task and was so successful that in six months he had abolished *Stegomyia* from Havana and in eight months yellow fever no longer existed there.

Following his Havana experience he was placed in charge of sanitary arrangements during the American occupation of Panama for the construction of the canal and it was almost entirely due to his efforts that this work was so successful. In fact we can attribute to Dr. Gorgas the fact that the American commission was able to build the canal in two years less than the time estimated, at a saving of \$80,000 and, if we compare the death rate of American labor with that of the French at a saving of 71,000 lives.

Following the building of the Panama Canal, Gorgas, as surgeon general of the United States Army, was in command of the medical service during the World War. His first duty was to build up a medical machine. In doing this he increased the army medical service from a peace strength of 435 medical officers to a war strength of 32,000 with 35,000 in reserve, from a peace strength of 3,843 hospital beds to a war strength of 100,000. He had 22,000 nurses and 250,000 other personnel in the service. With this organization backing him in the work he profited by the mistakes of the other allies and carefully examined the draft so as to be certain that none but those physically fit were sent overseas. At this time he examined approximately seven million men to select an army somewhat short of five

million, rejecting about one-third. Having secured a fit army his next problem was to keep it fit and he was so successful in this that sickness in the American Army during the war was less than in the civil population during the same time. In other words, apart from injuries of war, it was safer to be in the army during 1917 and 1918 than to be in the civil population. This was due largely to the fact that he used all the modern means of prevention. Compare, for example, the experience of the British army in the Boer War with that of the American army in the late war. In the Boer war the British lost 8,000 men from typhoid fever as against 7,000 from war injuries. In the World War, the American army, many times greater, had less than four hundred deaths from typhoid fever.

This great man died in England in 1920, having in twenty years almost abolished yellow fever from the earth, having been a great factor in the building of the Panama Canal and having done so great a work in the World War. During his life he had received all the honors that civil governments, military organization and learned bodies could confer on him, and consequently his friends had a very difficult problem in deciding on a memorial fitting to such a man. His great work was not the actual things that he accomplished, great as these were, but in the incentive given to carry on in the field of preventive medicine. Hence his friends decided that the most fitting memorial would be to follow the road that he had pointed out. Having this in view the Gorgas Memorial was organized for two purposes: first, to establish a laboratory in Panama to continue the investigation in tropical medicine; second, to extend the field of preventive medicine, to carry the fight for the prevention of disease from the field of communicable to that of non-communicable disease.

The fight has been, in the past, almost entirely against communicable disease. It has been carried on largely by health departments which, because a person suffering from a communicable disease was a menace to the community, could use the policing powers of government and could approach that person and compel him to take precautions to prevent the spread of the disease. But, because non-communicable disease menaces only the sufferer, no constituted authority has the power to interfere. The fight must be originated by the people themselves. We have no authority and no right to approach a person suffering from a non-communicable disease and endeavor to protect him. We must awaken the public to the fact that non-communicable disease can

be largely prevented and that they must take the initiative. This objective can best be reached by means of the periodic examination which is being advocated by several means:

1. By daily articles in the press to educate the public as to this necessity.
2. By radio talks carrying on the same campaign.
3. By public meetings held throughout as great a part of the country as possible, still having the same objective in view.
4. By organization of Gorgas Health Corps in all the great cities of the country.

Our objective is to secure five million members of Gorgas Health Corps in the United States. In the State of Iowa we hope to have 250,000 periodic examinations done annually.

But if this work is to be successful we must have the whole-hearted cooperation of the medical profession. It is necessary for the medical profession to realize the fact that when members of the general public present themselves for periodic examination they must be met at least half way. They must not be discouraged, but must, on the contrary, be encouraged to continue in this good work.

Zamp of Knoxville, Tennessee, has recently said, "The medicine of the future will more and more deal with prophylaxis and less with cures. The keystone of prophylaxis is the periodic examination of all people—men, women and children. No longer need we bemoan the passing of the family physician, for periodic examinations restore the close contact of the doctor with his patient and counteract the weaning influences of specialization and hospitalization. It has been sixty-seven years since periodic examinations were first advocated and even yet this great health problem has not received the attention it deserves. The public response has been slow because the value of such procedure has not been impressed on them with any degree of earnestness. We can never sell this proposition to the public until we have sold it to ourselves."

Bloedorn in the *Journal of the A. M. A.*, vol. clxxiii, says: "It behooves one who would conduct health examinations to properly equip himself in that particular field of medicine. Periodic examinations over a period of years place the examiner in the ideal position to advise the patient regarding the routine of his life. The health examiner must chart the road which the patient will follow in his journey through life. The hazards that lie ahead must be plainly marked,

the detours indicated and the speed limit clearly understood."

The periodic examination is not a new idea. It was first proposed by Dobell of London in 1861 and later advocated by Gould in this country. It has been endorsed by the A. M. A. which organization has issued a booklet of instructions and a form to be used by the examiner. It has been endorsed by many of the state societies, for example, in 1900 the California State Society made it a part of their official program and every member of that association pledged himself to do the work.

A very brief study of statistics proves the necessity for preventive work. Statistics show that only .5 per cent of the nation have no physical defect, and that 61.5 per cent have minor correctable disabilities, i. e., 62 per cent of the nation have disabilities which may be practically disregarded. Of the other 38 per cent, 23.8 per cent have disabilities which require active medical treatment and 14.2 per cent have serious disabilities. In other words over one-third of the nation should have medical care. This agrees fairly closely with Gorgas' experience in examining the draft when he rejected one-third as physically unfit for service.

That it is of economic value to the public has been shown repeatedly. One of the great life insurance companies has been carrying on this work among its policyholders for many years and in the period from 1911 to 1926 shows a saving in death claims of \$71,000,000. The latest figures from this same company show that by the periodic examination they have reduced their losses from 18 to 23 per cent. In one special industrial group they show a saving of 50 per cent in disability after three years trial. Other life insurance companies and industries have shown equally good results.

Its economic value to the physician is equally great. Today 40 per cent of the people never visit a doctor's office. Using United States Public Health figures we find that one-third of these should have medical attendance. Since the periodic examination is not an emergency measure and can be done by appointment in the idle hours which all doctors have, it can be stated that if one-fourth of the 40 per cent who are now cult shoppers or indifferent to their health, are brought to the doctor's office this is pure gain. One office in Chicago, recently told me that their periodic examinations paid all office expenses.

In order to encourage clients to submit themselves to the periodic examination it must be done

at a price that is not prohibitive. It can be done by the family physician in his office and can be done at a reasonable fee if the work is systematized. The ordinary periodic examination need not and cannot be the detailed examination that will diagnose all obscure diseases. If such were undertaken a great deal of unnecessary examination would be done and the public would be justified in accusing us of exploiting them. The patient should be told that, for a stated fee, a conscientious examination would be done which is sufficiently thorough to discover ordinary disease and to suggest more exhaustive examination along detail lines if there is a suggestion of disease which requires further investigation. The patient, at the end of the examination should be told of these suggestive symptoms, if such exist, and advised to undergo further examination.

The examination then, should consist of a study of the patient's heredity, and of his past life and illnesses. There should be a thorough physical examination with a complete urinalysis and blood count. Such an examination by a good clinician should enable him to discover any but the most obscure diseases and to find such evidence of the existence of undiagnosed disease as will warrant a recommendation that there be further examination. If the physician has not the equipment to carry on this more technical and detailed examination he must call to his assistance the specialists in the various procedures. He may require the help of the hospital radiologist or pathologist or of the specialist in some other department. The essential point is that the family doctor can conscientiously do the periodic examination if he has a thorough clinical knowledge, is equipped to use the ordinary aids of laboratory procedures, and will call to his assistance the specialists in medicine for the diagnosis of more obscure conditions. In other words he must be conscientious and thorough in his examination or he must not do it at all. Never forget that the client is placing his dependence on you. If you send him out of your office with the statement that there is nothing the matter with him and if by your neglect you have overlooked any incipient form of disease you may have done him infinite damage, in that by his false sense of security which you have created, he may be allowing some disease process to gain a footing and perhaps become incurable.

In order to properly carry on a periodic examination it is necessary to have proper organization. For example, only the comparatively idle physician can afford the time to elicit and write

the family and personal history. This can be done as well by the office nurse, thereby allowing the skilled medical man to devote more time to those parts of the examination which he only can do.

After any visit to the office of a doctor the patient expects to take something away with him. He is not satisfied without something tangible and in the case of the periodic examination he is entitled to it. He should have a written report of the findings and written advice. There are several reasons for this.

First—We as physicians are more careful in the formation of conclusions if we write them down.

Second—The patient has written advice which he has discussed with you and which he understands. If at first you have given him advice which is impracticable from his point of view, discussion will bring this out and will enable you to change it to advice which is practicable. Having such advice in writing he has no excuse for not following it.

Third—He may not be in a position at the end of the year to return to you but if he has your written report he can go to some other physician and so need not destroy the endless chain which you have commenced.


RECAPITULATION

1. Be thorough and conscientious in doing a periodic examination or do not do it at all.
2. Meet the patient half way by being interested and by doing a good examination for a fee that is not prohibitive.
3. If this examination leads to suspicion of more obscure disease tell the client so frankly and advise that further examination be undertaken.
4. Give the client a written report and discuss it with him.
5. See that he follows up his examination by a recheck at the end of the year. Write him to be sure that he does not forget.

INTERSTATE ASSOCIATION ELECTS IOWANS

Henry C. Langworthy, M.D., Dubuque, was elected Treasurer, and John F. Herrick, M.D., of Ottumwa; John E. O'Keefe, M.D., of Waterloo, and Dr. Langworthy, were elected members of the Board of Trustees of the Interstate Post Graduate Medical Association of North America at the meeting of the Association held in Atlanta, Georgia, the third week in October.

STATE HEALTH COMMISSIONER'S PAGE

 Henry Albert, M. D. 

PREVALENCE OF COMMUNICABLE DISEASE

During the month ending October 15th the communicable diseases of greatest interest have been, poliomyelitis, cerebrospinal meningitis, undulant (Malta) fever, typhoid fever, bacillary dysentery and scarlet fever.

POLIOMYELITIS

Twenty-seven cases of poliomyelitis (infantile paralysis) have been reported to date this year. It is a smaller number than we had expected. This is no doubt partly the result of the better observance of preventive measures. On the other hand, the high fatality rate suggests that not all cases were reported. The poliomyelitis season is rapidly passing. Cases may however occur at any time during the winter.

CEREBROSPINAL MENINGITIS

Forty-three cases of cerebrospinal meningitis were reported to the department for the year up to October 1st. Comparing this with twenty-five for same period last year, indicates a distinct increase. This is in line with the experience throughout the country. Meningococcus meningitis has indeed shown a progressive increase in the United States for each of the last three years. This year the incidence will be higher than in any year since 1918.

Seasonally, the increase in this disease begins about November and is at its height during late winter and early spring. In this respect, its occurrence is just the opposite of that of poliomyelitis.

It is not at all improbable that we may experience more than the usual number of cases next winter.

In view of the very splendid results obtained in the treatment of the disease by means of anti-meningitis serum, we are occasionally asked regarding specific prophylaxis. It is regarded as inadvisable to use the serum as a preventive. The use of the vaccine is still in the experimental stage. It is therefore necessary to depend on the

usual prophylactic procedures applicable to diseases transmitted by way of the respiratory tract.

UNDULANT (MALTA) FEVER

Dr. Hardy has a laboratory or epidemiological record of one hundred and twenty cases of undulant fever that have occurred during the past year. The disease, is evidently quite common and widespread. The paper which he presented at the Cedar Rapids meeting of the Society, was published in the October issue of this Journal.

TYPHOID FEVER

Although the occurrence in Iowa of fourteen cases of typhoid fever in one month is a far better record than prevailed, a few years ago, nevertheless this disease is still far too common. Every single case should be the occasion for a thorough investigation as to its source. Would you believe it that there are still cities in Iowa which take their municipal water supply from highly polluted rivers and consume it without treatment of any kind? Keosauqua, for example, gets such a supply from Des Moines river. Courts have held that the owners of water supplies are legally liable for damage done to health in case it delivers a water known to be polluted.

EPIDEMICS OF BACILLARY DYSENTERY

During the latter part of August an epidemic of bacillary dysentery occurred at Elkader. More than a dozen persons were affected and four succumbed.

Immediately following the Elkader outbreak, a severe epidemic of the same disease involving more than one hundred cases and resulting in seven deaths occurred in DeWitt, Clinton county. Dr. Jordan, assistant state epidemiologist, who investigated the epidemic, traced both outbreaks to an Indian affected with the disease who belonged to a carnival company which showed at fairs at both Elkader and DeWitt. Dr. Jordan believes that the transmission occurred chiefly through flies contaminating ice cream cones, pies,

(Continued on adv. page xviii)

The Journal of the Iowa State Medical Society

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Address all communications to the Editor of the
Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVIII November, 1928 No. 11

SINUS DISEASE

Is Iowa the “storm center” for sinus infection in the United States? Such a statement has been made by an eminent authority and furnishes food for thought. Is the high incidence of this disease due to our sudden changes of weather and our mode of living?

Climatic factors no doubt have a great deal to do with the incidence of colds from which a large number of sinus infections develop. The time has passed for the consideration of infections of the nasal mucosa by themselves, since in almost all instances the infection extends beyond the nasal cavities into the accessory sinuses, and it is from these sinuses that the chief discomfort from the infection is derived. To understand the mechanism involved in this extension it is well to briefly consider the anatomy of the parts.

The accessory sinuses are paired off so that there is a distinct set of cavities on either side which are more or less anatomically alike. The lower ones situated in the supermaxillary bone are called the antra of Highmore. Above the eye is situated the frontal sinus which is often very irregular in outline and maybe quite different on the two sides. Internally and high up in the nasal vault are the ethmoid cells, an intricate labyrinth of small cells lined with a delicate mucous membrane, which extends as high up as the cribriform plate. Posterior to the ethmoid cells is the sphenoid sinus, a cavity within the sphenoid

bone, which varies in size from a small pea to a walnut.

All the sinuses with exception of the sphenoid have their drainage in the region of the middle turbinate bone. The drainage openings are usually small. Therefore most of the drainage takes place by siphonage. As long as the normal mechanism works properly there is no trouble. But once an inflammatory condition arises in one of the sinuses the mucosa of the nose becomes acutely inflamed in its entirety with the result that drainage from the other sinuses is affected. High deflection of the septum, enlarged middle turbinates and nasal polypi also block the drainage of the sinuses and make the individual more susceptible to sinus infection once he has contracted a nasal infection. It would seem therefore that the damp, variable weather so common in Iowa and surrounding states, predisposing, as it most assuredly does, to coryzal infections, may justly receive a portion of the blame directed towards us by the authority quoted in the opening paragraph of this article. However, this may not be the whole of the story. May not the higher morbidity incidence of sinus diseases as reported in Iowa be accounted for to some extent by a more accurate recognition of the condition?

There is no doubt that in the majority of cases in which people complain of severe colds in the head, with profuse discharge of muco-purulent material from the nose, there is an infection of the accessory cavities, mainly the antra. These symptoms may not receive due consideration in areas where the condition is actually or relatively less prevalent. Incidentally, in antral infections two symptoms are of a great deal of importance. The first, that the patient has a sensation of dizziness while stooping over and the second is that he will often feel a jarring sensation in the teeth when he forcibly puts his heels to the ground.

Acute frontal sinus infection is most often caused by an inflammatory condition within the nose itself which is accompanied by an infection which extends through the naso-frontal duct. It is not so frequent in children because the sinuses are very poorly developed before the age of puberty. Here again error can frequently be avoided by observance of the outstanding and localizing symptoms. As a rule the patient feels a heaviness in the head which is accompanied by a dull throbbing pain over the eye which is only relieved when the sinus is made to drain. The pain is usually most severe on arising in the morning, and will continue as long as there is complete obstruction to one or more of the sinuses.

An acute condition of the frontal sinus must be differentiated from acute neuralgia, eye strain and affections of the other sinuses, particularly of the antrum. In neuralgia the pain is lancinating and extends along the course of the supra-orbital nerve and to the occipital bone. It is often intermittent in type and is seldom associated with discharge from the nose. In acute frontal sinusitis the pain is more localized over the eye but may radiate into the temporal region. The disease is usually associated with an acute inflammatory condition of the mucous membrane of the nose. In every instance, where a definite determination of the presence of inflammatory or infective products in the sinus cannot be made, an x-ray picture should be taken. The pain in antral conditions is mainly localized to the teeth and cheek but may radiate up into the forehead.

Is the public becoming "sinus conscious" and discussing their sinuses with the same abandon that formerly they were wont to discuss the tonsils and adenoids? Patients have heard so much of acute sinus conditions that they frequently come in with the diagnosis made beforehand, sometimes correctly and frequently incorrectly. At any rate it serves as a stimulus to the physician to look for symptoms of the disease. Examination, however, may show negative findings and the pain will be found due to eye strain or some inflammatory condition of the eye. In this connection it is well to sound a warning; in no instance should operative treatment be determined upon until an eye examination has been made. A careful history of the case is invaluable as are the x-ray pictures, properly taken and properly diagnosed. Transillumination, especially of the antra is also of value but cannot be relied upon as much as the x-ray. In every case in which doubt can exist one should take advantages of every method of examination available.

A distinct advance in the diagnosis of sinus disease has been made in the past few years by injection of iodized oil, neo-silvol, and other solutions into the sinuses, which are then observed by means of the fluoroscope and x-ray. By its use the lumen of a sinus may be outlined so that the thickness of the mucous membrane and the presence of polypi may be determined. This procedure has received careful observation and perfection in the hands of Proetz of St. Louis during the past few months.

From what has been said it will be apparent that while no evidence has been advanced refuting the statement that Iowa is the "storm center"

of sinus disease in this country, the statement is equally unproven by confirming facts. We have attempted to place the blame and perhaps in so doing have implied an acknowledgment of the charge. In all events we should not so blind ourselves by our defense that the glaring prevalence of sinus infections should not receive just attention, and much suffering alleviated by accurate diagnosis and adequate treatment.

DR. GEORGE E. CRAWFORD

"I think I am warranted in the declaration that the medical sciences have made more progress in the past half a century than in the twenty centuries preceding; but fifty years as we look back over them, and as we have looked forward, and the slow day by day rotation with which they pass seems a good long time."

This was a declaration made by Dr. George E. Crawford one night when he met with a group of officials of the Cedar Rapids Life Insurance Company at a banquet given in his honor to look back over his faithful service of fifty years of medical practice. Dr. Crawford in thinking over the past fifty years had the distinct advantage of most of the guests present in that he could give an account not only of the fifty years but, by implication, also of twenty centuries.

Should this be taken as a figure of speech or a dogmatic statement? No one at the dinner appears to have demanded proof of this long period of lost time, as is usually the case in these days of doubt, so this query cannot be answered with any degree of certainty. It may have been assumed that these twenty centuries marked a period of such profound darkness that the period was none too long for a reasonable counting. But knowing Dr. Crawford to be a serious-minded man, no one would suspect him of taking an unfair advantage in establishing a starting point at such a remote distance for the sake of security nor could one assume that the Doctor wished to imply that medicine of all the world's learning enjoyed no advancement for the twenty centuries immediately preceding his allotted period of fifty years. So it may be that the guests agreed to accept this statement as a common beginning point and admitted that each and every branch of learning and investigation, including both medicine and insurance systems had likewise made more progress in the last fifty years than in the preceding twenty centuries. A brochure printed by the company with which Dr.

Crawford is connected, reproduces his remarks made that evening.

The medical profession has always been generous in admitting how long the world had groped in darkness concerning disease, but have contended that progress in medicine has kept pace with the progress of other science.

What may we say of the ox team of fifty years ago and of the automobile and airplane of today; of the radio and radiograph, and the multitude of uses of electricity? The world was not standing still; progress and happiness existed. During this period, Dr. Crawford was rendering useful services and was watching with solicitous care for the approach of better things. Men were studying low forms of plant life, microscope makers were perfecting lenses and various accessories such as staining fluids. There were men of genius like Pasteur, who, with a vision not given to many, was studying the causes of disease—as the silkworm disease—of the causes of fermentation.

It was a long step when printing by movable types was invented, and what shall we say of the invention of the microscope, the oil immersion lens, and the various accessories? Science was a means of the advancement in medicine. It is no reflection on medicine that medicine did not know, and could not know, of bacteriology, of those low forms of life only discernible with magnifying aids until physical science had furnished and perfected the modern microscope. And then how rapidly came one element of common knowledge after another, and how rapidly one after another came our knowledge of tropical disease, which has changed the whole face of the world as to personal safety and commerce. Fifty years was short enough time to work out so many complex problems. If we accept the theory of Evolution as applied to civilization and intellectual development and progress, how much time must pass before human mind could grasp the wonderfully complex facts in pure and applied science; all this could not come over night.

It is not alone to the members of the medical profession that these complex elements of medical progress are known, but to the intelligent and educated of the lay world which expresses itself in gatherings to do honor to one who, like Dr. Crawford, has devoted his best years to problems which affect the interests and welfare of the people in general. It is difficult to adequately express one's appreciation of the great gain that has come to society in general through the development of the different systems and

forms of insurance. There can be no dispute as to the close relation between intelligently organized insurance companies and honest and upright medical co-operation. That this is not always true may be admitted, but if it does so happen it is only in limited instances, and soon disappears under the influence of the example of medical directors like Dr. Crawford and grateful directors who so generously express their appreciation.

RESOLUTION HONORS DR. GEORGE E. CRAWFORD

At a meeting of the Council of the Iowa State Medical Society held in Des Moines, September 22, 1928, action was taken for a resolution to be formulated in regard to the resignation of our fellow Councilor, Dr. George E. Crawford.

The following resolution is hereby submitted:

Be it resolved that we much regret that Dr. George E. Crawford, Councilor of the Fifth District of the Iowa State Medical Society has recently resigned because of impaired health. Dr. Crawford has been an active member of the State Society for fifty years, a member of the Council for twenty-five years, and this year was re-elected for another term.

For many years Dr. Crawford has been active in State Society work, holding the highest official positions and was a valued member and advisor of the Council during his long tenure of office.

We will miss his fellowship and counsel in our meetings and wish to express our appreciation of his great worth and we are very grateful for the long time of service he has given to this Society as Councilor. Dr. Crawford has always been willing to do his part and much honor is due him as a faithful worker and a conscientious physician. He has passed his fiftieth anniversary in the active practice of medicine, which means he has given much of his life for the welfare of organized medicine.

We, the Councilors extend to Dr. Crawford, our very best wishes and trust he may enjoy many years of good health, filled with happy moments and pleasant memories to which any physician is surely entitled who has served the public for more than half a century.

CHANNING G. SMITH, M.D.,
Chairman.

SAMUEL T. GRAY, M.D.,
Secretary.

Council Message

COUNTY SOCIETY MEMBERSHIP

Your Council in a recent all-day meeting, after full consideration of the matter, unanimously voted to request each component society to invite into membership every practicing physician in the county who is eligible (as determined by county society Censors).

The Councilors felt that the increased activities of the State Society and those services which are now to be rendered the component societies and member physicians, fully justified every reputable Iowa physician in joining and contributing his share toward the support of organized medicine. Some of these activities are:

A constructive legislative program which is being painstakingly and diplomatically worked out by our Legislative Committee, the details and plans of which will be reported, through the Deputy Councilors, to the various societies.

A program and scientific speaker's bureau.

A speaker's bureau for lay meetings, which will recruit speakers, supply them with data for popular health talks, and secure dates.

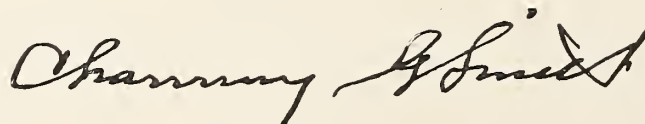
The development of such close coordination between lay health and social workers and the various county societies that all such work involving health activities shall be done under the supervision of, or in cooperation with, organized medicine in each locality.

Definite plans to assist the editor of the Journal.

A survey indicates that there are a few hundred eligible physicians who are not now members of the various component societies. The Council voted to hold a Membership Invitation Week, or campaign, during the last half of November; but already applications, new members and dues are coming in. It seems likely that before the end of the year, the Iowa State Medical Society will include a very high percentage of all reputable physicians in the state.

This will be of inestimable value not only because of the strong sense of unity but because of the tremendous power of a society—its Legislative Committee, or Council, or other standing committee—which enrolls practically all eligible physicians. We should make a definite effort to bring into the influence of organized medicine every worthy physician in each county.

The Council as a whole, each Councilor, and the Deputy Councilors of the various societies, stand ready and eager to assist in every possible way toward this great goal.



Chairman.



The Doctor and the Layman Join Hands



"Be it resolved by the Council of the Iowa State Medical Society that members of the Society should take an increasing part in all public health work, and especially in all lay organizations having to do with public health, prevention of disease, * * * ."

In these unequivocal words the Iowa State Medical Society on September 22, 1928, put in its platform the planks of preventive medicine and educational public health work. This action together with previous steps taken in setting up a full time executive department through which the Society could cooperate with all state-wide movements established the medical profession of Iowa in the forefront of progressive groups throughout the country working for community betterment.

This was a long step forward in enabling the medical profession to assume that leadership in public health movements to which because of its knowledge and equipment it is rightfully entitled.

In a number of counties physicians have for several years been active in public health movements. When the National Conference of Social Work met in Des Moines Dr. John H. Peck was asked to present a paper on such activities of the medical groups. At his request the publicity committee of the Conference sent a questionnaire to county medical society officers. The replies of seventeen societies showed considerable activity along public health lines. They showed that the county societies had done one or more of the following things: held tuberculosis and heart clinics as one of the regular society programs; promoted employment of public health nurses; conducted weekly health columns in newspapers; aided in diphtheria immunization; cooperated with parent-teacher associations in the summer round-up examination; endorsed and actively participated in the Christmas seal sale; made use of its members as a speakers' bureau on public health subjects; and interested itself in various community health projects such as milk inspection, bovine tuberculosis eradication, the early diagnosis campaign and health work in schools.

In more than a dozen counties of the state doctors are officers of county public health associations organized under the auspices of the Iowa Tuberculosis Association. In nearly half the counties there is at least one doctor on the executive committee of such association. In one county all the doctors and two of the dentists at the county seat are members of such committee.

For many years past the State Society through its trustees or other governing body has endorsed the annual Christmas seal sale conducted by the Iowa Tuberculosis Association and local health associations. In so doing it has recognized the possibilities of mutual helpfulness between the organized medical profession and a voluntary association in which both doctors and laymen participate. The medical profession can render to such a voluntary health movement certain definite services. Among these are furnishing the scientific basis for the public health program and continuous advice as to policies. Another valuable service is public speaking and no doctor should hesitate for reasons of professional reticence to give to the public at the request of public health workers that accurate information which he alone possesses. This idea has been approved by the Council of the State Medical Society and not only have they recommended this speaking service to local physicians but they have started plans for organizing a state-wide speakers' bureau.

On the other hand a voluntary agency can render services to the medical profession. It can carry on educational and preventive campaigns which the medical profession would hesitate to promote under its own auspices. It can direct to the attention of people the necessity for periodic medical examination. Last spring the Iowa Tuberculosis Association and its local units conducted a state-wide campaign as part of a national movement whose key notes were "Go to Your Doctor" and "Let Your Doctor Decide". In matters of legislation and community organization such a voluntary organization can help to safeguard the interest of the medical profession indirectly while promoting directly the best interests of the people at large. Obviously these interests are identical.

In a direct way the Iowa Tuberculosis Association may be of service to physicians by offering literature on heart disease and other subjects, by offering the services of examiners in chest diseases for county medical programs, by participating in promotion of such projects as the post-graduate course held last summer, by collecting statistics, by publication of a monthly magazine on public health and by legislative, educational and publicity work.

Dr. Henry Albert, state commissioner of health, has expressed the usefulness of such an organization in the following words:

"A voluntary organization such as yours can very materially assist the state department in the carrying out of its health program. It is also in a position to do very important and desirable health work which the state department is not permitted, by law, to do.

"There is such a great need for so much work to be done in connection with the prevention of tuberculosis, heart disease and allied conditions that I heartily commend the seal sale."

Because of this past history of mutual aid and because of greater future possibilities in the same direction the medical profession is giving hearty cooperation to the Christmas seal sale being conducted throughout the state of Iowa from Thanksgiving to Christmas.

Twenty-five million penny Christmas seals were ordered by the state association for distribution. These were found insufficient and an additional order for three million has been placed.

This quantity if the seals were laid side by side would extend from Omaha to Chicago or make a belt across the state in both directions. Translated into human lives it is estimated that the work accomplished by Christmas seal funds in the field of tuberculosis prevention alone represents a saving in this state of 950 lives annually. Translated into dollars statisticians estimate that the public health work done by the State Tuberculosis Association, its affiliated county and local health organizations and co-operating agencies represents a money saving of \$744,000 a year in Iowa.

The proceeds of the seal sale are used by the local associations in various forms of child health work, nursing, weighing and measuring, health education, fresh air camps, clinics, dental inspection, school health supplies such as scales, first aid kits, thermometers, posters, books, etc., and a portion by the state association in the prevention of tuberculosis both in humans and animals, in the discovery and prevention of heart disease, and in general health work.

This is the twenty-first annual Christmas seal sale. During this period in which the money thus raised has been used in preventing disease and promoting health the tuberculosis death rate has been reduced 55 per cent, infant mortality 20 per cent and the general death rate 10 per cent.

The seal depicts a viking ship with swelling sails bearing the international emblem, the double barred cross, speeding through a foam-capped sea. On the blue background are the words "Christmas Greeting 1928". The color scheme is red, gold, green and blue. The sails of the ship are white and gold, the hull red and gold, the waves green and white. The color of the sky is a happy shade of blue which is deep and rich and at the same time vivid.

The National Tuberculosis Association has adopted the following motto for this year's advertising:

"Her cargo full of countless wealth
Of joy and hope and human health."

CHRISTIAN SCIENCE WELCOMES MEDICINE

The following letter, interesting and self-explanatory, gives evidence that another cult is seeking the fold of sanity and science.

THE CHRISTIAN SCIENCE WATCHMAN
20 Jackson Place, N. W.

Washington, D. C., October 17, 1928.

Editor,

Journal of the Iowa State Medical Association,
Bankers' Trust Bldg.
Des Moines, Iowa.

Dear Doctor:

The tragedies that have been permitted in the name of Christian Science by its overzealous devotees have largely justified the widespread prejudice against it. The Christian Science Parent Church, the independent minority movement in Christian Science, is endeavoring to bring a new spirit of sanity and common sense into the practice of mental healing. It recognizes the unselfish, humanitarian labors of the medical profession in alleviating human suffering. It likewise recognizes the vital function of spiritual forces in relation to health. It is convinced that there exists a basis of cooperation on which medicine and religion may strive together for the advancement of world health.

Since Mrs. Eddy's death, Christian Science practice has very largely become a commercialized faith-cure. The record of disease and death among Christian Scientists during the last few years is appalling. Because of a superstition that the use of a drug is an evil and the employment of medical aid tantamount to a confession that Christian Science has failed, the majority of the adherents of that faith turn to medical assistance only as a last resort, usually secretly and with the depressing conviction that they are committing a positive sin. Such an attitude tends to nullify the work of the physician and deplete the patient's mental capacity for recuperation. Frequently the doctor is called only when death is considered imminent, and to prevent, if possible, the embarrassment of an inquest.

These conditions have arisen from a misconception of Christian Science in its larger application. In order to prove to an incredulous world that the body can be healed by mind, drugs were discarded during the early stages of the movement. Nevertheless, it is a recognized fact in Christian Science that a drug may be the medium through which the common faith and hope of the majority of mankind expresses itself. In the personal experience of Mrs. Eddy there came a time when neither her own nor her followers' unaided faith was sufficient to relieve her of serious suffering. Understanding the power of the faith of the majority of mankind in medical science she decided to utilize it, and gratefully availed herself of the services of reputable physicians on various occasions.

In so doing, she was consistent with her own teaching on the relation of a minority's faith in mind-power to a majority's faith in material means. She was far in advance of her followers' practical application of Mind-Science. Had her example been intelligently followed by her students, Christian Science practice would today hold a higher place in the general estimation of the world.

The Christian Science Parent Church was organized a few years ago under the leadership of Mrs. Annie C. Bill. It has developed branches throughout Great Britain, America, Australia and elsewhere. Its members have been recruited almost entirely from those who have resigned from the original Christian Science organization after they became convinced that the trend of thought within that body precluded further advancement of Mind-Science.

This organization maintains that the work of the Christian Scientist is limited to the teaching of spiritual truth, and to removing fear and other unhealthy moral conditions. Its members are forbidden by their church by-laws to meddle in any way with medical or surgical practice, but must leave such work to those who are qualified and legally authorized for that responsibility. Neither shall a practitioner of this church render his services unless both patient and attending physician request his aid.

Spiritual healing has a definite place in therapeutic practice. Therefore, in order that it may be utilized under such conditions as will keep it within its proper field and insure the maximum results, we bespeak the intelligent cooperation of the medical fraternity.

Yours very truly,
A. M. Vickery, Editor.

TWO WEEKS' COURSES IN LARYNGOSCOPY, BRONCHOSCOPY AND ESOPHAGOSCOPY FOR SPECIALISTS

It will be of interest to surgeons and otolaryngologists to know that the Graduate School of Medicine of the University of Pennsylvania has announced a series of short courses in laryngoscopy, bronchoscopy and esophagoscopy for specialists. The period of study in each course of this series will consist of two weeks' intensive study under the personal supervision of Dr. Jackson and his staff of instructors.

Dates for the remaining sessions of the series are: January 28 to February 9, and April 8 to April 20, 1929.

The courses include about six hours daily of intensive study, consisting of lectures; lantern and drawing demonstrations; endoscopic clinics; practice, in the technic, upon cadavers and dogs. Topics discussed are: uses, dangers, indications and contraindications of peroral endoscopy; diagnosis of foreign bodies in the air and food passages; the solution of the mechanical problems offered by various types of

foreign bodies; bronchoscopy in diseases of the lung; and bronchoscopy as an aid to the internist and the thoracic surgeon.

The courses are limited to twelve registrants and are intended for qualified surgeons or otolaryngologists who desire an intimate view of this very important subject. Those who take this course are required to provide themselves with certain books and certain instruments for individual practice. Physicians whose visual acuity cannot be brought up to 20/20 by refractive correction are visually unfitted for peroral endoscopy. The fee is \$250, of which \$25 is to be paid at registration and \$225 at matriculation.

Those qualified and desiring registration should address communication "Dean, Graduate School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania".

SOCIETY PROCEEDINGS

Boone-Story County Meeting

The Boone-Story County Society met in Ames on October 4 and after dinner served to thirty-nine members and their invited guests, the following program was presented:

Goitre, by Dr. N. M. Whitehill of Boone. The discussion was opened by Dr. Stanger of Boone, followed by a general discussion by members present.

Allergic Reaction in So-called Hay Fever and Bronchial Asthma, by Dr. J. O. Ganoe of Ogden. The discussion was opened by Dr. Whitaker, Drs. Jones and Updegraff of Boone following with a general discussion.

"The President Has a Hen On": Dr. Haerem of Story City, who is the president of the Story County Society, in a very pleasing way responded to this subject and invited all those present to meet in Story City on November 13. He suggested that a member from each society be selected by the secretaries who would tell a story as a part of the program and further suggested that the stories be such as to require no concurrent nor terminal disinfection, and it was further decided that every thing should be sanitary so that our host who is health officer of Story City would have no cause to quarantine the visitors.

Drs. Voldeng and Smith of Woodward and Cartwright of Grand Junction were guests of the society.

Mark C. Jones, Sec'y.,
Boone County Medical Society.

Buchanan County Meeting

The Buchanan County Medical Society met for dinner Thursday, October 18, at the Hotel Gedney in Independence. The program was devoted to medical economics and the speakers were: T. U. McManus, Waterloo, president of the Iowa State Medical Society, who read a paper on Some Problems Confronting the Medical Profession in Iowa;

Channing G. Smith, M.D., Granger, chairman of the Council, who read a paper entitled Medical Economics; and Vernon D. Blank, managing director of the State Society, who spoke upon Service to the Component Societies. Several guests were present from Blackhawk and surrounding counties who joined with the members in an interesting and extended discussion upon the matters presented in the papers of the evening.

Annual Cedar County Meeting

After a dinner at the Hotel Tipton, October 9th, the Cedar County physicians held an interesting meeting. Charles Krause, M.D., Cedar Rapids, who is connected with the State Committee on Cancer Control gave out helpful and important information on The Early Recognition and Management of Cancer. Wayne Foster, M.D., Cedar Rapids, also gave a fine talk on Importance of the Early Recognition of Glaucoma. Walter N. Moore, M.D., of West Branch, read an interesting paper entitled The Great Divide.

The election of officers followed and resulted in the election of: W. H. Jenks, M.D., Tipton, president; C. G. Stookey, M.D., Mechanicsville, vice-president; E. J. Van Meter, M.D., Tipton, secretary-treasurer; L. J. Leech, M.D., delegate, and P. M. Hoffman, M.D., alternate.

W. H. Jenks, Retiring Sec'y.

Cerro Gordo County Meeting

The regular monthly meeting of the Cerro Gordo Medical Society was held Tuesday evening, October 16, at the Park Hospital. Twenty-five members were present for a session which opened with a business meeting at which Mary B. Spahr, M.D., was elected to membership in the society. The following clinical program was presented by the Park Hospital staff: Mary B. Spahr, M.D., Infant Feeding; N. C. Stam, M.D., Cystic Kidney; Geo. M. Crabb, M.D., Bone Tumor; and L. R. Woodward, M.D., Diabetes.

Following a short social hour, an exceptionally palatable luncheon was served.

C. M. Franchere, Sec'y.

Annual Meeting of Dallas-Guthrie Society

The annual meeting of the Dallas-Guthrie County Society was held at the Hotel Panorama, Panorama, Thursday, October 18. The scientific part of the program consisted of a paper by E. J. Butterfield, M.D., Dallas Center, Acute Nephritis in Children; and a paper by M. L. Turner, M.D., Des Moines, Nutrition of the Child. The twenty-seven members entered into an interesting discussion of these well written papers after which the annual election took place. Officers chosen were: President, B. M. Johnson, Casey; vice-president, P. B. Glew, M.D., Dallas Center; secretary-treasurer, S. J. Brown, M.D., Panorama; delegate, M. N. Voldeng, M.D., Woodward; alternate delegate, W. R. Van Duzer, M.D.,

Casey; and the Board of Censors consists of C. O. Sones, M.D., Panorama; George Elvidge, Perry, and C. I. Thomas, M.D., Guthrie Center. Four new applications for membership were received.

S. P. Brown, M.D., Sec'y.

Grundy County

The Grundy County Medical Society met October 26 at Grundy Center. At this session a heart and lung clinic was held under the direction of the Iowa Tuberculosis Association with Drs. J. H. Peck and C. B. Luginbuhl and Miss McMichael in charge. A number of interesting heart and lung cases were demonstrated.

Members present were: Drs. Bartruff, Kahler, and Biebeshimer of Reinbeck; Drs. Thielen, Crouse, McDowell, and Mol and Miss Kennedy, R.N., of Grundy Center; Drs. Gould and Spain of Conrad; Dr. Heddins of Wellsburg; Dr. McManus of Waterloo, president of Iowa State Medical Society; and Dr. Cullison of Dike.

A duck dinner, at noon, was enjoyed by the guests and members of the society.

R. M. Cullison, M.D., Sec'y.

Johnson County Medical Society

The Johnson County Medical Society met for their regular October meeting at the Commercial Club Rooms. Fifty-six members and guests were present. The society met for dinner at 6 o'clock, Wednesday, October 3, after which a brief business meeting was held.

Among the guests were Dr. B. B. Everall of Monona, Iowa, Dr. Sutherland of Los Angeles, California, and Dr. Chas. J. Rowan of Pasadena, California.

The scientific program, presented by the officers of the society, consisted of three papers:

Supra Condylar Fractures—Dr. G. H. Scanlon.

He presented two cases with x-rays, showing results. One was still in cast. The other had an excellent reduction and functional result.

Carcinoma of the Colon—Dr. F. R. Peterson.

This was a review of all the cases that have been operated on for the past ten years, previous to July, 1928, seventeen in all. Dr. Peterson pointed out that early diagnosis is difficult but could be made, if the trouble were suspected; that the prognosis is poor, even with the most favorable circumstances, less than 50 per cent survive more than two to four years.

Functions of the County Medical Society—Dr. Geo. C. Albright.

He pointed out that the county medical society should serve a double purpose. First: To bind the members of the profession into closer fellowship. Second: To serve as a constant post-graduate school for all its members.

The spirit and enthusiasm of the society is excellent. There is some talk of making the meetings more frequent in order that all the available talent may be utilized.

Jones County Meeting

Thursday, October 4, the Jones County Medical Society met at the John McDonald Hospital in Monticello at 7:30 p. m. W. J. Foster, M.D., of Cedar Rapids and B. F. Wolverton, M.D., of Cedar Rapids, gave the addresses of the evening. A buffet luncheon was served following the meeting.

Linn County Meeting

At the meeting of the Linn County Medical Society held at the Montrose Hotel, Cedar Rapids, on Thursday evening, October 11, 1928, the members of the society listened very attentively and with much interest to a paper presented by Edmund Andrews, M.D., of the surgical department of the University of Illinois, on the subject Newer Aspects of Liver Diseases. This was a splendid paper and presented liver diseases in a truly new light. There was a large attendance and much discussion. Following the meeting a buffet luncheon was served, the hosts being Drs. George E. Crawford, Jennings Crawford, and J. Lynn Crawford. J. M. K.

Marion County Meeting

The regular fall meeting of the Marion County Medical Society was held Thursday, October 25, at 7:30 p. m. in the court house at Knoxville, Iowa. The program was a symposium on blood-pressure and consisted of three papers: The Mechanics of Blood-pressure, H. E. White, M.D., Knoxville; The Clinical Aspects of Blood-pressure, F. P. Ralston, M.D., Harvey; The Treatment of Blood-pressure Variations, H. C. Payne, M.D., Pella.

An interesting discussion followed which was opened by H. L. Bridgman, M.D., of Knoxville.

Polk County Society Meeting

The Polk County Medical Society met for its regular monthly meeting at the Iowa Methodist Hospital on September 25, 1928.

This meeting consisted of a clinic by the staff of the Iowa Methodist Hospital:

Dr. W. L. Bierring presented a case of Recurrent Rheumatic Fever. Dr. E. J. Harnagel presented a case of Diverticulitis of Sigmoid, possibly due to carcinoma with a perforation. He also presented a case of Acute Cystitis with no definite etiology. Dr. F. A. Ely gave a talk on Anterior Poliomyelitis, which was followed by a discussion by Dr. Henry Albert. Dr. M. L. Turner presented a case of Acrodnia.

Dr. E. B. Winnett then presented the matter of a Medico-Art Building for Des Moines. This was discussed by various members. Dr. A. C. Page then moved that a meeting be held within two weeks and that the temporary committee, which has been serving, be appointed as a permanent committee for the Polk County Medical Society for the consideration of the ways and means of the building, also that the dentists be invited to participate and two dentists be appointed on the committee.

There were seventy-nine members present and five visitors making a total of eighty-four.

Polk County Society Considers Medical Arts Building

The Polk County Medical Society met for a special meeting on October 12, 1928, at the Fort Des Moines Hotel. The meeting was called to order by the president, Dr. Ralph H. Parker.

Various plans and building sites for a Medical and Dental Arts Building were presented by Drs. Winnett, Kelley, and Langdon. This was discussed freely and Dr. Thomas A. Burcham moved that the committee be continued and increased to five (5) members from the Polk County Medical Society. This was duly seconded and unanimously carried.

Dr. Burcham then moved that the dentists be asked to appoint a similar committee to confer with the Polk County Medical Society Committee in this matter. This was duly seconded and carried. The other two members appointed to serve on the augmented committee were Dr. C. F. Howland and Dr. Thomas A. Burcham.

Muscatine County Meeting

The Muscatine County Medical Society met for dinner in the Gold Room of the Hotel Muscatine, Tuesday, October 23. William J. Mayo, M.D., headed a program given by members of the Mayo Clinic. The program follows: The Cancer Problem, by William J. Mayo, M.D. Operations of Necessity During Pregnancy, by R. D. Mussey, M.D., head of the division of obstetrics and gynecology of the Mayo Clinic, and associate professor of obstetrics on the Mayo Foundation for Medical Education and Research under the University of Minnesota. Actinomycosis, by T. B. Magath, M.D., associate in the division of clinical pathology in the Clinic, and associate professor of pathology on the Mayo Foundation.

Scott County Meeting

The Scott County Medical Society met Tuesday evening, October 8, at eight o'clock and was addressed by P. F. Stookey, M.D., of Kansas City, Missouri, on Vincent's Angina.

Tama County Meeting

The Tama County Medical Society met at Clutier, September 27, 1928. Eleven members and eight guests of the society were served a delicious three course dinner by the domestic science class of the Clutier high school.

F. W. Gessner, M.D., Dysart, gave a very able report on The Treatment of Gonorrhea in the Female; and A. A. Pace, M.D., Toledo, read a paper on The Use of Serum in the Prophylaxis and Treatment of Disease. Both papers were well discussed.

C. W. Maplethorpe, Sec'y.

Webster County Meeting

One of the most active societies in the entire state holds weekly meetings, omitting only the first Tuesday of each month. Thus since the last Journal went to press four sessions have been held by the Webster County Medical Society in the Commercial Club rooms in the Wakhonsa Hotel, Fort Dodge.

They were as follows:

September 25, 1928: W. W. Bowen, M.D., Fort Dodge, Lung Abscess, with lantern demonstration.

October 9, 1928: T. U. McManus, M.D., Waterloo, Some Problems Confronting the Medical Profession of Iowa.

October 16, 1928: S. B. Chase, M.D., Fort Dodge, Accessory Nasal Sinus Disease in Children.

October 23, 1928: J. M. Garrett, M.D., Fort Dodge, Nocturnal Enuresis.

Woodbury County Meeting

The September meeting of the Woodbury County Medical Society was held Monday evening, September 24, 1928, at the Jackson Hotel in Sioux City. Anatole Kolodny, M.D., of the department of surgery of the State University of Iowa Medical School was the speaker of the evening and his subject was Head Injuries. The members of the Plymouth County Society were invited guests.

Austin Flint-Cedar Valley Society Meeting

Tuesday, October 23, the Austin Flint-Cedar Valley Society held its autumn meeting in Iowa Falls. The morning session was opened by Clarke W. Mangun, M.D., Iowa Falls, reading a paper upon the Significance of Hypertension in the Pre-apoplectic State, which was discussed by F. E. St. Claire, M.D., Hampton. Guy E. Anderson, M.D., Ackley, read a paper, Pruritus and its Treatment. The discussion was opened by N. C. Stam, M.D., Mason City. The subject, Some of the More Common Itching Dermatoses, was treated by J. F. Auner, M.D., Des Moines, who then conducted a Dermatological Clinic. Intrathoracic Malignancies was the subject of a paper by A. A. Schultz, M.D., Fort Dodge, and J. C. Shellito, M.D., Independence discussed it. C. W. Rutherford, M.D., professor of ophthalmology, College of Medicine, University of Iowa, through a misunderstanding did not arrive on time, but will give his paper at a future meeting.

After a business meeting the program was devoted to Medical Economics. Channing G. Smith, M.D., Granger, chairman of the Council of the Iowa State Medical Society, spoke upon Medical Economics; Vernon D. Blank, Des Moines, managing director of the State Society, spoke upon Service to the Component Societies, and Oliver J. Fay, M.D., Des Moines, chairman of the Board of Trustees of the Iowa State Medical Society presented a paper, Some Phases of Industrial Medicine and Surgery under the Iowa Compensation Law. T. U. McManus, M.D.,

Waterloo, president of the State Society, discussed Some Problems Confronting the Medical Profession of Iowa, and the program concluded with a talk by G. Henry Mundt, M.D., Chicago, Illinois, president of the Illinois State Medical Society, upon the subject, The Social Aspect of the Practice of Medicine.

After a dinner served by the Ladies of the Congregational Church, Dr. Auner, toastmaster, introduced President Ido F. Meyer of Ellsworth College who delivered an Address of Welcome, to which Dr. Mundt of Chicago responded. Orchestral and vocal music completed a program which all agreed came up to the promises of the treasurer, W. E. Long, M.D., of Mason City, who had announced the meeting with the following poem:

On the banks of the river called Iowa,
There Austin-Flint will have its day,
This beautiful spot where nature calls,
Is the present site of Iowa Falls.

October twenty-three in the early morn
Crank up the car and toot your horn;
And scurry along to this beautiful town,
And enjoy yourself 'till the sun goes down.

And then at the festive board we'll meet,
And enjoy ourselves at the banquet treat;
For this is a feature we play up well,
As all our members are prone to tell.

As the years pass on in our routine life,
We appreciate more the faithful wife
Who is interested in all we have to do,
So come right along and bring her too.

Entertainment and socials will be rife
For all who come—both friend and wife;
When the day is closed we can say,
"This is the end of a perfect day".

For the Medical Boys of Iowa Falls,
Have donned their shirts and overalls,
And are working with all their might and main
To give us a royal good time again.

Southeastern Society Meeting

The fifty-third annual meeting of the Southeastern Iowa Medical Society was held Thursday, October 11. T. P. Hollowell, warden of the Iowa state penitentiary was host to the society and all meetings were held in the auditorium of the state prison. The scientific program began at two p. m. and consisted of the following papers:

President's Address—R. L. Feightner, M.D., Fort Madison. Medical Responsibility in Precancer Diagnosis—J. T. Hanna, M.D., Burlington. Pernicious Anemia—Frank S. Rohner, M.D., Iowa City. The Acute Abdomen—E. B. Howell, M.D., Ottumwa. A Tentative Report on the Female Pelvic Fascia—H. J. Prentiss, M.D., Iowa City.

A six course dinner was served at six p. m. and was followed by a highly entertaining vaudeville program of seven acts staged by the prisoners. Following the entertainment a short business meeting was held during which the following guests were introduced: Harold M. Camp, M.D., secretary of the Illinois State Medical Society; Dr. Channing G.

Smith, chairman of the Council of the Iowa State Medical Society; Dr. S. T. Gray, secretary of the Council; and Vernon D. Blank, managing director of the State Society, who spoke briefly upon services being rendered by the state office.

The program was concluded with a paper by Sumner L. Koch, M.D., Chicago, Diagnosis and Treatment of the Major Infections of the Hand, illustrated by lantern slides and motion pictures.

The session was well attended, there being nearly two hundred guests at the banquet and every detail was well handled by the committee on arrangements consisting of Drs. R. S. Reimers, I. W. Traverse, Frank Richmond, and S. J. Dierker.

The officers during the past year were R. L. Feightner, M.D., Fort Madison, president; C. R. Armentrout, M.D., Keokuk, vice-president, and W. H. Johnston, M.D., Muscatine, secretary-treasurer. The next meeting place is Ottumwa, Iowa.

At the business session the following officers were elected: M. Bannister, M.D., Ottumwa, president; Frank J. Rohner, M.D., Iowa City, vice-president; W. H. Johnston, M.D., Muscatine, secretary-treasurer; George B. Crow, M.D., Burlington, J. H. Chittum, M.D., Wapello, and J. T. McConaughy, M.D., Winfield, were elected to the board of censors of the organization.

Iowa and Illinois Central District Meeting

The fall meeting of the Iowa and Illinois Central District Medical Association was held Thursday evening, October 11, at the LeClaire Hotel in Moline, Illinois. The speakers of the evening were: Drs. N. F. Miller and E. D. Plass of Iowa City, on gynecology and obstetrical practice; and Dr. Francis E. Seneat, Chicago dermatologist.

CHEST CLINICS HELD

Muscatine County

Fourteen members of the Muscatine County Medical Society attended the luncheon and chest clinic at Muscatine, September 28th. The visiting clinicians, Doctor John Peck, and Doctor Merrill Myers, made the trip from Des Moines by airplane. As the result of the air trip considerable impetus was added to efforts being made by Muscatine physicians and others to have proper markings visible to pilots. The plane arrived by nine a. m. but after circling the city for about twenty-five minutes, the occupants were unable to locate the new air port and were forced to land in a wheat field three miles from the city.

Bremer County

Under the local direction of Doctor W. L. Whitmire of Sumner, president of the County Medical Society, and Doctor M. N. Gernsey of Waverly, secretary, a combined lung and heart clinic was held by the Bremer County Society at Sumner, October 5,

1928. The visiting clinicians represented the Iowa Tuberculosis Association and the Iowa Heart Association. Rheumatic heart disease was given special consideration in the heart clinic. The diagnosis of early tuberculosis and the use of tuberculin were discussed at length in the lung clinic.

The following members were present: Dr. W. L. Whitmire, Sumner; Dr. M. N. Gernsey, Waverly; Dr. F. J. Bries, Sumner; Dr. C. H. Graening, Waverly; Dr. L. D. Jay, Waverly; Dr. L. C. Kern, Waverly; Dr. F. M. Mahin, Plainfield; Dr. E. N. Osnes, Readlyn. Dr. T. N. Walsh of Hawkeye was a guest.

Davis County

The following physicians attended the heart and lung clinic sponsored by the Davis County Medical Society, October 12, 1928:

Dr. C. C. Heady, Bloomfield; Dr. H. C. Young, Bloomfield; Dr. C. H. Cronk, Bloomfield; Dr. G. W. Gilfillan, Pulaski; Dr. E. R. Newland, Drakesville; Dr. J. G. Stone, West Grove, and Dr. R. D. Toben, Bloomfield.

Special consideration was given to heart disease in youth, and also to the clinical differentiation between rheumatic and luetic heart disease. Bronchiectasis, its diagnosis and treatment, and practical diagnostic points relating to tuberculosis were discussed in the lung clinic.

The clinical conference was conducted by representatives of the Iowa Tuberculosis Association and the Iowa Heart Association.

PERSONAL MENTION

Dr. J. R. Crum, a member of the Tama County Society has moved from Elberon, Iowa, to Farmersburg, Iowa, where he will continue his practice.

Dr. C. A. Nicoll formerly of Winterset, has moved to Linden, Iowa, where he is succeeding Dr. A. W. Brunk.

Dr. C. T. Grattidge has moved from Britt where he has been practicing to Mason City, taking over the office and equipment of the late Dr. M. J. Fitzpatrick.

Four Sioux City physicians attended the annual clinical congress of the American College of Surgeons which was held in Boston, Massachusetts the second week in October. Those from Sioux City who attended were: Drs. A. F. O'Donoghue, R. Q. Rowse, S. E. Sibley, and James E. Taylor.

Iowa Druggist Honored

Denny Brann, Des Moines druggist, is the first Iowan to be honored by the presidency of the National Association of Retail Druggists. This organization has 20,000 members, some 500 being Iowans, whose purpose is to improve retail drug service to physicians.

OBITUARIES

Dr. Lewis Schooler, one of the deans of Iowa medicine, died at Mercy Hospital in Des Moines the morning of October 10, 1928, as the result of an immediate illness of three months' duration which followed two years of failing health. Born at Columbus, Indiana, March 17, 1848, he graduated from the Kentucky School of Medicine and came to Sheldahl, Iowa, when discharged from service at the end of the Civil War. He later moved to Des Moines and was Dean of the College of Medicine at Drake University. In addition to his widow, Dr. Schooler is survived by five children, Ward and Dean Schooler, Misses Blanche and Hazel Schooler, and Mrs. A. S. Price.

Dr. Carl M. Post, Des Moines physician and surgeon, died at Battle Creek, Michigan, Sunday, October 21, 1928. Earlier in the month Dr. Post severely wrenched his leg and hip by stepping into a depression on the golf course. A deep seated abscess in the hip resulted and was the cause of his death. Dr. Post was forty-nine years old, a graduate of Drake University Medical School and a former associate of Dr. Wilton McCarthy. In addition to his widow, he is survived by a ten-year-old daughter, Mary Jane, and two sisters, Lillian of Des Moines and Mrs. George Mason of Lincoln, Nebraska.

Dr. Austin H. Johnson of Cedar Rapids, a charter member of the Linn County Medical Society died Tuesday, September 25, 1928, at the age of seventy-eight. He was born in Cedar Rapids, graduated from Rush Medical College in 1878 and returned to his home, continuing in practice in Cedar Rapids for fifty years until the day of his death.

Dr. Johnson is survived by one daughter and a sister. He was a member of the Linn County and Iowa State Medical Societies at the time of his death and his county society paid high tribute to him in the following words taken from resolutions adopted at a recent meeting:

"His professional character was always above reproach. He was careful in the observance of the ethics of the profession—this more through his natural nobility and kindness, than following stereotyped rules."

Dr. Henry McGregor Shipley died May 15, 1928, after a brief illness from pneumonia, at the age of thirty-three years. He was the only son of Dr. and Mrs. J. H. Shipley and was born at Rippey, June 24, 1895.

Dr. Shipley graduated from the Rippey high school at the age of sixteen years. After two years at the Des Moines University, he began to study medicine and graduated from the school of medicine of the Nebraska University in 1919. He enlisted in the medical corps during the World War and

later engaged in private practice. At the time of his illness he was practicing surgery at Richmond, Virginia.

Dr. E. L. Holyoke of Lincoln, Nebraska, died April 1, 1928. Dr. Holyoke was the son of Dr. Thomas Holyoke, one of the founders of the city of Grinnell.

Dr. E. L. Holyoke was graduated from Grinnell College with the class of 1883 and had practiced medicine in Lincoln for more than forty years.

Dr. M. E. Schriver, formerly of Oakland, Iowa, died at his home in Cumberland, Nebraska, March 17, 1928.

Dr. Schriver was born at Byesville, Ohio, March 11, 1874. He received his early education in the public schools of Byesville. In 1893 he came to Illinois, where he engaged in teaching school for a few years, and later moved to Council Bluffs. Dr. Schriver graduated from the Creighton Medical School at Omaha in 1907. He began the practice of medicine at McClelland, where he remained two years. He then moved to Nebraska, where he practiced ten years, after which he returned to Iowa and practiced at Oakland for ten years. Then on account of failing health he retired from practice and sought other employment, but nothing satisfactory appeared and he later resumed practice at Cumberland. Again being unable to continue practice he submitted to a surgical operation, without favorable results, and he died March 17, 1928.

While practicing in McClelland he married Blanche Fox, who, with three children, survives him.

BOOK REVIEWS

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1927

Cloth. Price, Postpaid, \$1.00. Pp. 103.
Chicago: American Medical Association, 1928.

The Council on Pharmacy and Chemistry of the American Medical Association annually publishes the reports which tell the reasons for non-acceptance of those products which during the year it has found unworthy of recognition.

Among the products reported as unacceptable are: Bismogenol, which is bismuth salicylate under a fancy name; Desitin, a complex mixture from Germany; Hexol, a pine oil preparation for which unwarranted claims are made; Warnink's Advocaat, a mixture of potassium arsenite and alcohol in the form of an egg nog marketed without emphasis of the arsenic content in a way likely to lead to harmful and ill advised use by the public; and Solvo Aspirin, another futile attempt to market a solution containing acetylsalicylic acid rendered soluble by addition of sodium bicarbonate.

A glance at the index shows, however, that these reports do not always deal with articles that have been actually rejected by the Council. Preliminary reports are frequently made on new products which appear promising but for which there is not yet sufficient evidence to warrant inclusion in New and Non-official Remedies. Included in this group this year are: a report on Blueberry Leaf Extract, which gives promise of being useful in the treatment of diabetes; a report on "Plasmoquin", a substitute for quinine in the treatment of malaria brought out in Germany but thus far withheld from the market by the American agent; a report on "Alpha-Lobeline", which has been the subject of many conflicting estimates but which lacks conclusive evidence demonstrating its usefulness; two reports on Ephedrine, announcing standards, evaluating therapeutic usefulness, and finally announcing the acceptability of the drug and of two of its salts; a report on Bismarsen, a new derivative of arsphenamine containing bismuth and proposed for use in the treatment of syphilis.

Of much current interest is the reprint of the report of Dr. R. A. Hatcher reviewing the literature on the Gwathmey method of colonic anesthesia and evaluating the present standing and usefulness of this method. This report is an outstanding example of the way in which the Council in addition to its other activities aims to contribute to the advance of general medical knowledge.

NEW AND NON-OFFICIAL REMEDIES, 1928

Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Ass'n. on January 1, 1928. Cloth. Price, Postpaid, \$1.50. Chicago. American Medical Association.

This book is the work of a distinguished organization, the Council on Pharmacy and Chemistry of the American Medical Association, which some twenty years ago was founded to clean out the Augean stables of proprietary medicines. The Council's plan was and has been the publication annually of a book containing descriptions of those unofficial preparations which after careful investigation have been found worthy of recognition and consideration by the medical profession. The physician who best safeguards his own interests as well as those of his patient will give no consideration to any proprietary medicinal agent which is not listed in New and Non-official Remedies.

The book is conveniently arranged for reference: each preparation is classified, and each classification is preceded by an authoritative and up to date discussion of the composition, actions, uses, and dosage of the medicament involved.

Among the more important revisions this year are: the rewriting or recasting of the chapters on Medicinal Foods, Insulin, Arsenic Compounds, and Iron and Iron Compounds; revision of the chapters on

Ovary and Parathyroid to make them conform to the results of recent research; and revision of the names and standards of the acriflavine dyes. A noteworthy omission is that of all parathyroid gland preparations designed for oral administration, their lack of efficacy by this route having been conclusively demonstrated.

The following are some of the products which have been recognized during the past year and which are now included in the book: Neonol, a new barbitol compound; Mesuro!, a bismuth preparation for use in the treatment of syphilis; Bromural, once omitted from the book, but now reinstated as a result of the manufacturer's limitation of therapeutic claims; a number of standardized cod liver oils; Ephedrine, an alkaloid with epinephrine-like properties, and its hydrochloride and sulphate salts; Amiodoxyl benzoate, the ammonium salt of orthoiodoxybenzoic acid, proposed for the treatment of arthritis; Crotalus Antitoxin, an antisnakebite serum; several brands of erysipelas streptococcus antitoxin; and Anaerobic Antitoxin, and antitoxic serum for use against gas gangrene.

On account of the careful revisions and the current additions, New and Non-official Remedies is essentially a new book each year, indispensable to the physician who would keep up with the march of therapeutic progress.

ULTRA-VIOLET RAYS IN THE TREATMENT AND CURE OF DISEASE

By Percy Hall, M.R.C.S. (Eng.), L.R.C.P. (Lond.); Hon. Acting-Therapist, The Mount Vernon Hospital, London and Northwood; Hon. Consulting Physician to the Hull Municipal Light Clinic, Etc. With Introductions by Sir Henry Gauvain, M.A., M.D., M.C. (Camb.), F.R.C.S., Medical Superintendent, Lord Mayor Treloar Cripples' Hospitals, and Leonard E. Hill, M.B. (Lond.), F.R.S., Director, Department of Applied Physiology and Hygiene, National Institute of Medical Research, London. Third Edition. The C. V. Mosby Company, St. Louis, 1928. Price \$4.50.

The first edition of this work appeared in 1924. Since that time the volume has undergone annual revisions, necessary because of the tremendous popularity and painstaking study accorded this therapeutic agent. English conservatism is noteworthy throughout the book. Even in his discussion of rickets, the vitamins, surgical tuberculosis and certain skin diseases, the author does not permit his enthusiasm to carry him into a realm of fantasy or speculation. The volume is essentially a guide to methods and technique—so essential in the administration of any physical medicament. His discussion of indications for, and contraindication against, the use of the violet rays should prove helpful to any user of heliotherapy. This volume will especially

appeal to the physician desiring brief but authoritative information relative to the uses of the violet ray in medicine.

BACTERIOLOGY FOR NURSES

By Charles F. Carter, B.S., M.D.; Director, Terrell-Carter Laboratory, Dallas, Texas; Director, Laboratories, Parkland Hospital; Lecturer, Bacteriology and Pathology, Parkland Hospital School of Nursing. Illustrated. The C. V. Mosby Company, St. Louis, 1928. Price \$2.25.

This volume has been prepared especially as a guide to the teaching of bacteriology to nurses. It conforms to the outline prepared by the Committee on Education of the National League of Nursing Education and in this fact lies its chief claim to superiority. The strict omission of non-essential, or even essential but voluminous detail, further recommends the volume. Every teacher of student nurses appreciates the fact that details, particularly in the "fundamental sciences", must be furnished by the lecturer, the text serving as a guide for review and reference. At the end of each chapter is a group of questions designed for quizzing or group study. The illustrations are clear and well-chosen. The volume appears highly well-suited for the purpose for which it was written.

THE HEART IN MODERN PRACTICE— DIAGNOSIS AND TREATMENT

By William Duncan Reid, A.B., M.D., Assistant Professor of Cardiology, Boston University, School of Medicine, Etc., 81 Illustrations. Second Edition Revised and Enlarged. J. B. Lippincott Company, Philadelphia and London.

With the advent of methods of greater precision in the graphic examination of the heart, information concerning abnormal cardiac function has been collected with increased accuracy and precision. In fact, certain avenues of cardiac investigation, heretofore closed because of the inadequacy of methods of physical examination, have been opened wide to thorough observation by the newer methods of technique. Information derived from this newer type of investigation has not become the common property of the general practitioner apparently for two distinct reasons—first, the information has not been stripped sufficiently of highly technical signs, symbols, and terms of the cardiac laboratory to be readily understandable, and, second, there has not been much, if any, effort made by cardiologists to collect, condense, and classify material in a sufficiently orderly fashion to make the study in any sense an easy one. The present volume is written by a cardiologist for the general practitioner. The author, sensing the obstacles to the dissemination of this information cited above, has striven very success-

fully to overcome them. Here the general practitioner will find the special terms of the heart specialist simply defined and graphically illustrated, and their application to cardiac investigation briefly but adequately explained. The arrhythmias receive greater consideration than was accorded in the earlier edition of this work, which I believe is in keeping with the field of interest in this specialty. Many new illustrations have been added, chiefly in the form of plotted curves or graphs. All subject matter has been rearranged to conform with the scheme of terminology formally accepted by the Heart Association.

No comparable book has come to the reviewer's attention in this field of medicine. Certainly the physician desiring to keep abreast of the times in cardiology can make no mistake in giving this volume careful reading and study.

GYNECOLOGY

By William P. Graves, M.D., Professor of Gynecology at Harvard Medical School. Fourth Edition, Thoroughly Revised. Octavo Volume of 1016 Pages, with 562 Illustrations, 128 in Colors. Philadelphia and London: W. B. Saunders Company, 1928. Cloth, \$10.50 Net.

This book, first published in 1916, was originally designed and written primarily as a text-book for medical students. Its author has added in scope and detail with each revision of the work, so that today this fourth edition appears more fittingly as a reference volume than a student's text-book. However, with proper guidance from the teacher, the medical student using this volume as a text-book will familiarize himself with the essentials of this branch of medical science and at the same time become thoroughly acquainted with a volume to which he can turn for guidance in every gynecological problem encountered in his practice later.

The revision of this book has been made in keeping with the painstaking and masterly fashion of its previous writings. So comprehensive has this revision been that the volume is essentially a new book. In it one finds the newer physiology, pathology, and endocrinology pertinent to the subject. The classification and histogenesis of genital malignancies, together with their treatment, has been completely modernized. The technique of radium therapy and the lead treatment of cervical carcinoma is up-to-date and presented in generous detail. The chapter dealing with the problems of sterility is most interesting and useful. In his presentation of the surgical technique of gynecology an outstanding accomplishment is achieved in the new serial drawings illustrating each individual step in the procedure. The photographic illustrations so generously used throughout the book are well-chosen and well-reproduced.

(Continued on advertising page xviii)

The Colfax Sanitarium and Grand Hotel Springs COLFAX, IOWA



THE COLFAX SANITARIUM

A modern institute devoted to the treatment of rheumatism, neuritis, and kindred ailments.

Two complete units—separately managed—one for the care of those needing nursing attention—the other for milder cases desiring a change and relaxation for recuperation. Hydro-therapy with approved medical methods employed. Trained masseurs and masseuses.

Patients do not have to go out for treatment. Bath treatments have been administered here for over thirty years. Rates furnished on request.

R. G. ANSPACH, M.D., Medical Director
W. E. ANSPACH, M.D., Associate Director

GRAND HOTEL SPRINGS



O. S. FATLAND, D.D.S.
M. E. HAGER, R.N.

Oconomowoc Health Resort **Oconomowoc, Wisconsin**



On main line C. M. & St. P. Ry., 30 miles west of Milwaukee

Built and Equipped in 1907 for the specific purpose of treating **NERVOUS** and **MILD MENTAL DISEASES**.

Building absolutely Fireproof. Non-institutional in appearance, accommodations modern and home-like. Fifty acres of park with beautiful views over lakes. Every essential for treating nervous cases provided, including extensive baths and separate occupational department under supervision of trained teachers. Number of patients limited, assuring personal attention from the resident staff.

ARTHUR W. ROGERS, M.D., Physician in Charge

JAMES C. HASSALL, M.D., Medical Supt.

FRED GESSNER, M.D., Asst. Physician

STATE HEALTH COMMISSIONER'S PAGE

(Continued from page 438)

sandwiches, etc., all of which were freely exposed to flies.

RABIES

A fourteen year old boy succumbed to rabies at Dubuque October 3rd. The boy had been bitten on the thumb by a dog. The wound was treated by the mother with a solution of lysol. Nine days later antirabic treatment was started.

This case suggests several important lessons:

First: The dog which has bitten a person should not be killed unless necessary to effect his capture. If the dog is affected by rabies, he will show it in a few days and the antirabic treatment can be started at once.

Second: Every dog bite should be treated by a physician and the treatment should preferably consist of cauterizing the wound thoroughly with *fuming nitric acid*. Do you have the fuming acid in your office? If it is not available when you need it, the concentrated nitric acid will do, but it is not as good as the fuming. This acid is very penetrating and effective and apparently does not result in any more of a scar than if it had not been used. *Fuming nitric acid* has been found to be almost specific if used at once, is usually effective if used within twelve hours and may help even after twenty-four to forty-eight hours have elapsed.

SCARLET FEVER

Scarlet fever is again on the increase in various parts of the state. The scarlet fever streptococcic antitoxin has given excellent results in treatment. The three to five dose prophylactic immunization with toxin (Dicks) is recommended for exposed or probably exposed non-immune children whenever the disease gains a foothold in a community.

SOME INTERESTING STATISTICS CONCERNING
PHYSICIANS IN IOWA

Number	Year 1925	Year 1926	Year 1927
Certificates to practice (by exam.)-----	7*	74	82
Certificates to practice (by reciprocity)-----	42	49	35
Deaths -----	58	57	70
Left State (approximate No.)-----	76	118	87
Total number registered (as per paid annual renewals) -----	3427	3313	3292

*Small number due to first year of interne requirement.

BOOK REVIEWS

(Continued from page 452)

BLOOD AND URINE CHEMISTRY

By R. B. H. Gradwohl, M.D., Director of the Gradwohl Laboratories, St. Louis, Missouri, and Ida E. Gradwohl, A.B., Instructor in the Gradwohl School of Laboratory Technic, St. Louis, Missouri. With 117 Illustrations and 4 Color Plates. The C. V. Mosby Company, St. Louis, 1928.

This volume is designed to serve as a text and reference book, both to the laboratory worker and the practitioner of medicine. Part I is devoted to a discussion of blood chemistry. Detailed and minute instructions are furnished of the technique to be employed in each procedure, together with a comprehensive discussion of the interpretation and clinical significance of the results obtained. For the most part, the tests suggested are standard ones, and ones suitable for use in the smaller laboratory of the practicing physician. Part II presents the chemistry of urinalysis, as well as its microscopy and bacteriology. Here again the discussion covers not only methods but interpretation of results obtained. Part III is devoted to the clinical interpretation of laboratory results by systems, while Part IV deals with basal metabolism.

The painstaking thoroughness of the authors is everywhere manifested in the book. The descriptions are concise but entirely adequate, and the discussions based upon well-chosen and cited authority. The volume adequately presents the entire subject of laboratory methods of blood and urine chemistry, and is heartily recommended.

INTERNATIONAL CLINICS

A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery and Allied Branches. Edited by Henry W. Cattell, M.D., Philadelphia, and C. H. Mayo, M.D., Rochester, Minnesota. Volume I, 38th Series, 1928.

The first paper is by John Philips, M.D., of Cleveland, Ohio, on Visceroptosis in which is reviewed the prolapse or descent of the abdominal organs, known as Glenard's disease.

The paper which most interests us is in the Medical Section under the title "The Renaissance" by John Rathbone Oliver, M.D. The author reviews medical literature, beginning with the "Revival of Learning", or about 1450, when printing was invented. He writes of the demoralizing effects of the black death, on the low level of spiritual life in the fourteenth and fifteenth centuries; of the "mysterious dreaded scourge of syphilis". He compares the two men Paracelsus and Vesalius. He writes of the learning of Erasmus and of the conditions and events of their day.

D. S. F.

The Journal of the Iowa State Medical Society

VOL. XVIII

DES MOINES, IOWA, DECEMBER, 1928

No. 12

THE NEGLECTED TOXIC GOITER*

C. B. LUGINBUHL, M.D., Des Moines

At a time when most of our scientific periodicals contain at least one article on goiter, when a symposium on goiter is the rule at every medical meeting, when a vast amount of picturesque lore concerning goiters and internal goiters is current among the lay people, the idea of any goiter escaping attention may seem absurd. Yet a study of any considerable number of older goiter patients, whether the term older be applied to the patient or to the goiter, will bring convincing evidence that many goiters have been neglected. An opportunity to examine a group of elderly heart patients, taking them, so to speak, the run of the mill, will bring quite as convincing proof that many toxic goiters are overlooked. With our increasing knowledge of the clinical manifestations of goiter, and the more general recognition of the need for, and value of basal metabolic rate readings, the future should see a marked improvement in the prognosis of these patients, but we shall have the problem of the care of the goiter patient with cardiac, cardio-renal, or psychic disturbances until prophylactic treatment has found general acceptance over a period of many years.

I have chosen to use the general term "toxic goiter", since the surgeon, the clinician, and the pathologist are not yet in accord on goiter nomenclature, perhaps because the exact relationship between histo- and chemico-pathology and the clinical picture is still obscure. The term toxic goiter is one which may, I believe, be applied to any type of goiter in which toxic symptoms are manifest. Such symptoms may be detected even in the supposedly benign colloid goiter in many cases if we are alert for their appearance. Every goiter is a potential source of trouble. An enlargement of the thyroid may apparently subside, but if such a thyroid gland were sectioned

serially, and carefully studied, pathological changes, the potential source of toxic symptoms, would be found. The type and the time of the development of such changes and symptoms are dependent upon a variety of factors, only in part known. Often the toxic goiter patient dates his symptoms from a definite event, an attack of influenza or, less frequently some other infectious disease, from some nervous shock, as the death of a loved one, or some accident in which fright or pain were excessive. Detailed questioning, however, will usually elicit a history of suggestive symptoms, antedating the incriminated event by many years, even decades. Sometimes the patient has been previously examined, having come in with a variety of indefinite symptoms, suggestive rather of a neurosis than of any organic disease. Once a thyroid explosion has occurred, these early symptoms are readily interpreted as those of a mild thyreotoxicosis. Cases of toxic adenoma are longest neglected. There may be a history of adolescent goiter, of symptoms suggestive of toxic exacerbations during periods of storm and stress; but the diagnosis has not been made, and there has been no attempt at treatment until the patient, now perhaps in the fifth, the sixth, or even the seventh decenium consults the physician because of troublesome heart symptoms, less frequently a psychosis. Obviously, the ideal treatment of these cases is prophylactic—medical in those very early cases of colloid goiter in which we may assume that the changes are still largely functional; surgical where there is obvious pathology. Any goiter patient who is given conservative treatment, should, like the patient with so-called arrested tuberculosis, be kept under close observation, should be shielded from any unusual physical or emotional strain. If economic conditions make such protection impossible, operation should be advised. If we can attain to these ideal conditions, the goiter patient of the future should have a very favorable prognosis. At present there is also the goiter patient who required such prophylactic treatment many years ago. Since we cannot rewrite his life his-

*Presented before the Seventy-Seventh Annual Session, Iowa State Medical Society, Cedar Rapids, Iowa, May 9, 10, 11, 1928.

tory, and many of these goiters date back to a period when goiter surgery carried with it a prohibitive mortality, we can only face the issue, do what may still be done for the patient with a neglected goiter.

The much discussed and still unanswered question of etiology need not be taken up. The early pathological and clinical history of the patient with a neglected goiter can be given only cursory attention here. The clinical history may have been reported as negative, no importance being attached to the moderately fast pulse, the slight tremor, the failure to gain weight though the food intake may be above the usual body requirements. The periods of remission and exacerbation may not be definitely defined, so that the development of so-called adenomata escapes the attention of the patient, and even of his physician. If the further history of these patients is characterized by some more or less acute flare-up, if the classical symptoms of hyperthyroidism develop, the diagnosis of toxic goiter is made, and surgical treatment is usually advised.

If there are no acute flare-ups, if the clinical picture is not so typical of goiter, a certain number of these patients will continue from year to year with their malady undiagnosed. They have no exophthalmos, the thyroid gland may be neither bosselated nor greatly enlarged, or if some slight enlargement of the thyroid is noted, the patient may give a history of an adolescent goiter which has given no further trouble, and so mislead the examiner. There is one constant symptom of hyperthyroidism—and only one—tachycardia, real or relative. It may vary in degree, but it is present. Often the patient is not conscious of it, or notices it only when under some unusual physical or nervous strain. During these periods of unusual stress, other symptoms of hyperthyroidism are generally also to be detected. The stage of thyroid pathology does not always correspond with the age of the patient, nor with the age of the goiter, but rather with the severity of the exacerbation. Many of these patients first notice alarming symptoms only when they have reached or passed middle life. Perhaps it is only that they become increasingly conscious of the rate and force of the heart beat, or that they are alarmed at the development of pre-cordial pain. Unfortunately, symptoms of decompensation have often become marked before they seek the source of their disability. At this stage, the heart condition may so dominate the clinical picture that the etiology of the cardiac symptoms may be overlooked. In addition to tachycardia, extra systoles, anginal pain, and hypertension are often present, and second in frequency only to

tachycardia, is auricular fibrillation. Basal metabolic readings are of the greatest value, but it is readily understood that these readings will show the widest variations; in the burnt-out goiter they may be relatively low, while in an acute exacerbation they may vie with the high readings obtained in acute exophthalmic goiter. In the presence of tachycardia and a small adenoma, a working diagnosis of toxic goiter is justifiable. A basal metabolic reading above fifteen and a tachycardia again justifies the same tentative diagnosis. Besides the classic symptoms of hyperthyroidism, there are a number of simple clinical observations which the patient may himself supply. Thus, even though these patients are under weight and appear below par, they are rarely conscious of the cold; Sir James MacKenzie says that this fact is responsible for much marital discord and debate over the amount of bed covers required. These patients may have an insatiable appetite, yet state that the more they eat the thinner they grow. So-called "smothering spells" are often complained of, as is also pressure upon the trachea. A history of recurrent attacks of polyuria and polydipsia accompanied by weakness is not unusual. Pigmentation of the skin is commonly noted.

When a diagnosis of toxic goiter has been made in the case of a patient with auricular fibrillation or cardiac decompensation, the question of the prognosis with and without operation becomes one of paramount importance. In the absence of organic heart disease, the cardiac symptoms may be attributed to the toxic goiter, and this is to be considered as a progressive disease in a majority of patients. Surgery is always to be advised in chronic toxic goiter provided that the condition of the patient, particularly the condition of the patient's heart, justifies his classification as a fair surgical risk. Many chronic goiter patients have a hypertension. This is not a contraindication to operation, but the patient who, having had a high blood-pressure, evidences a marked and persistent decrease in this pressure is to be considered a precarious surgical risk. In general, the toxic goiter patient responds well to surgical treatment, and given time, operation becomes reasonably safe, but the pre-operative and post-operative care is a matter of vital importance.

A striking example of the ability of the heart to come back following a thyroidectomy was furnished by Mrs. A. W., who entered the hospital on January 12, 1928, with marked symptoms of decompensation of the heart. She stated that her health had always been good, except for subphrenic abscess operated in 1917. A year ago

she had had marked nervousness, dyspnea, and weakness; these had been somewhat improved after ten days' hospital care, but had not been relieved, and had recently become acute. On admission, marked orthopnea was noted; the liver, heart and spleen were much enlarged, the liver extending two finger-breadths below the umbilicus. There was free fluid in the abdominal and the pleural cavities. The pulse rate was irregular, ranging from 70 to 102, and there was a marked pulse deficit. The blood-pressure was 110/60; the metabolic rate was plus 74 on admission, plus 28 after ten days. After three weeks of bed rest, digitalis, sedatives, a sub-total thyroidectomy was performed. The post-operative course was surprisingly uneventful, and when the patient left the hospital two weeks after operation, compensation was re-established. She has remained well except for a brief recurrence of the decompensation, induced by over work. The pathologist reported a fetal adenoma.

There is one therapeutic measure and only one that is of universal application—rest in bed. Sometimes the heart symptoms subside rapidly, and operation may safely be performed after only a week or ten days. In most cases, the maximum result may be obtained with not more than a month of bed rest, but in the occasional patient further improvement may be noted after this time. In general, compensation should be established and auricular fibrillation controlled before the heart is subjected to the peak load that is thrown upon it following operation. Digitalis is of little service in controlling the heart in exophthalmic goiter, but in these chronic cases, it may be most useful in slowing and regulating the heart. Its administration must be carefully controlled at all times, for the toxic goiter heart also does not invariably respond to its use. Quinidin is sometimes valuable, but it is also sometimes distinctly harmful, particularly in the old toxic adenoma where there are advanced heart changes so that it is to be prescribed only with the greatest caution. Lugol's solution is not the miracle worker here that we find it to be in early and acute hyperplastic goiter. It is often of marked benefit in the toxic goiter also, but it may be without effect, or even positively harmful. In any event, it is powerless to restore damaged heart tissue. Goodpasture has demonstrated by studies on the hearts of deceased goiter patients, and by the experimental production of hyperthyroidism in rabbits, that there is actual degeneration and scarring of the heart muscles. Functional evaluation of these changes, and adequate medical care before and after operation keeps the operative mortality surprisingly low. Imme-

diately following operation, the heart symptoms which brought the patient to the doctor are prone to recur—auricular fibrillation, for instance. Once the patient has been tided over this critical period, there may be a surprisingly, almost a miraculous restoration of functional power. Auricular fibrillation may occur only occasionally, or it may disappear entirely. There may be no further symptoms of decompensation. But there is also a darker side to this picture. The improvement may be only transient. The patient, particularly if he lives at a distance and so beyond the control of his physician, may die a "heart death" within a few weeks or months of the apparent recovery.

A typical example of a good operative recovery followed by progressive heart failure was the case of Mrs. A. M., aged fifty-six, who entered the hospital in August, 1927. She had had a goiter for thirty years, but gave a definite history of toxic symptoms of some months duration only. Recently she had spent some weeks in bed because of "heart failure". There had been swelling of the feet and ankles for several years, increased during her periodic attacks of dyspnea and nervousness. At the time of her admission, the blood-pressure was 140/68; the basal metabolic rate plus 34; the pulse was irregular in force and in frequency; auricular fibrillation was marked. Digitalis, which had been administered in large doses, and had not been well tolerated, was discontinued and opiates and Lugol's solution were given. On the eleventh day, a discrete, degenerating adenoma was removed. She made a good recovery, and continued to improve after returning home, though never entirely free from nervousness and weakness. These symptoms became more troublesome at holiday time, and following a cold in February, she became so ill that she returned to the hospital. The basal metabolic rate was plus 11; the blood-pressure was then 102/78; auricular fibrillation was again noted. Nine weeks later she died of congestive heart failure.

A less common, but no less interesting symptom in the neglected goiter patient is the occurrence of a toxic psychosis. Since psychosis in a goiter patient may be purely incidental, the first problem is one of differential diagnosis. The preparation of the patients, and the determination of the time of operation is for the most part based upon the general criteria of operability rather than upon the mental state of the patient. The use of sedatives is a more important therapeutic measure than in the control of the nervous symptoms originally met with. The psychic symptoms like the cardiac symptoms are prone to

recur, sometimes in an exaggerated degree, in the days immediately following operation, but the prognosis as to eventual recovery is very good.

The course of such a toxic psychosis is illustrated by the case of Mrs. M. E., who entered the hospital on August 30, 1927, her symptoms were suggestive of a manic-depressive psychosis. How long she had had symptoms attributable to goiter could not be determined, but eight years before she had had hospital treatment for palpitation and shortness of breath. She had then been fairly well until four months before, when palpitation again developed, becoming progressively worse until she had been forced to take to her bed ten days before coming to the hospital. Her pulse rate was 134; blood-pressure 150/60. The thyroid was palpable and presented a thrill and bruits. The basal metabolic rate was plus 57. Twenty-three days later it had fallen to plus 34, but because of the mental and the general physical condition of the patient, operation was postponed. The marked psychosis made the care of the patient extremely difficult; the excitability was controlled by sedatives and opiates when necessary. Lugol's solution was administered. On the forty-seventh day, a bilateral, partial lobectomy was done. Recovery was practically uneventful, and the mental condition improved steadily. There has been no return of the psychosis. The pathologist's report on the tissue removed was adenoma of the thyroid with moderate hyperplasia.

The post-operative care of these patients requires the same constant supervision as the pre-operative care. In the case of heart patients in particular, there should be a prolonged rest period following operation. Digitalis or quinidin may occasionally be used to advantage. Where a considerable portion of the gland has been removed, Lugol's solution in decreasing dosage may sometimes be employed for a short period. It is probable that all patients who exhibit auricular fibrillation, or symptoms of decompensation, have a damaged heart muscle. The extent of this damage and its exact nature, whether minute scarring or extensive degeneration, is something which we cannot certainly determine in the living patient. We must, therefore, consider each of these patients as having a heart lesion, and their return to an active life must be most gradual however miraculous their recovery may appear.

CONCLUSIONS

The question is not whether the patient or the physician has neglected the toxic goiter, but what we may do for the patient. Any man may have failed to recognize a toxic goiter, but the man

who makes a diagnosis of toxic adenoma and promises a medical cure is on a par with the cancer quack.

Persistent tachycardia always inspires distrust. If a basal metabolic reading is obtainable, it is better to be safe than sorry. Where the tachycardia is associated with auricular fibrillation and a palpable adenoma, the basal metabolic reading is not required for diagnosis, but such readings serve as an excellent therapeutic guide.

Surgeon and clinician need not dispute their claims to the neglected goiter patient. While medicine is as powerless to effect a cure as in cancer, these damaged hearts cannot carry the peak load imposed by operation until they have been given the most exacting medical preparation. The surgeon who operates without ensuring the patient such preparation, arraigns himself with Cain.

The goiter patient with the damaged heart may be brought safely through operation by skilled care only to lose out when he attempts to return to normal activity. Medicine and surgery may do much, but they cannot rebuild damaged hearts.

Discussion

Dr. Aldis A. Johnson, Council Bluffs—One might ask, why the neglected toxic goiter? It is not always the doctor's fault that the toxic goiter is neglected. Oftentimes when the case comes to our attention the patient says, "It is not the enlargement of my neck that is causing the trouble; I have had that for fifty years, twenty-five years—that is not the thing that is causing my trouble, it is something else". Dr. Luginbuhl has brought out some very good points relative to the cases that are neglected. I do not think that medicine can do anything in the cure of the toxic goiter case; the goiter should be diagnosed and treated before it becomes toxic. It is a surgical case. I have wished many times that I could find something that would be effective in the case of neglected toxic goiter. Frequently the patient is responsible for this neglect. It is very difficult to convince the average patient that loss of weight, weakness of the legs, abnormal appetite, nervousness, all the symptoms that go with toxic goiter, are due to the little lump in his neck. As a rule it takes the medical man or the surgeon a long time to convince the patient of this. But the doctor does sometimes make mistakes in diagnosing the condition, and in many of the cases diagnosed as neurasthenia, diabetes or tuberculosis, perhaps I or possibly you have made a mistaken diagnosis. The commonest mistake coming to our attention is that of diabetes. Very many of the patients that come to us with a neglected toxic goiter have been diagnosed as diabetes and put on a starvation diet, with the result that he rapidly loses weight and finally comes to the stage where very little can be done for him. We see these old cases of heart trouble which

come to us with rapid heart, and upon examining such a case I am almost prompted to believe it is a primary heart disease. Only after careful study of the case can one determine that the condition is due to goiter. I think that medicine and surgery should work together in such a case. In making the diagnosis the problem is not wholly surgical, but partly medical. I believe that in some cases, probably just as soon as you see a lump in the neck, it would be well to take it out even in the case of that patient who has hypothyroidism. This is a very good paper on a timely subject. We are seeing many of these cases, perhaps because of influenza which I believe sometimes plays a part, and also because of the rapid rate at which we are living. In discussing thyroid cases at a meeting in the northern part of the state I expressed the opinion that it was the increased stress of life which caused toxic thyroid, and one man said that if this were true every one should have it because of the prevailing financial conditions. All these factors have something to do with changing a simple adenoma into a toxic adenoma.

Dr. Walter L. Bierring, Des Moines—We have been favored in having a paper presented that is based on an unusually large experience with the different forms of goiter. In presenting these observations the essayist emphasizes the need of constant cooperation between internist and surgeon. It is recognized that all cases of toxic goiter are essentially surgical, and that the toxemia is relieved by a removal of the adenoma. The peculiarities of this toxemia are ably presented and the necessity of recognizing the effect of the same as early as possible. Attention is called to that form of heart disease generally referred to as the thyroid heart, and the importance of recognizing the related signs of cardiac failure as tachycardia, arrhythmia or disturbed compensation. These are expressions of the systemic toxemia, and if not relieved by digitalis or other cardiac therapy, the results of thyroidectomy will not be satisfactory. There is much about thyroid disease that is still mysterious and difficult to explain, particularly with reference to its etiology, but in the light of present knowledge the best results for our patients are obtained by the closest cooperation between the attending physician and the operating surgeon. Doctor Luginbuhl has rendered a distinct service by directing attention to so-called neglected toxic goiter, the great need of recognizing the effects of the resulting toxemias with special reference to the heart and directing the treatment according to the indications.

Dr. Donald Macrae, Jr., Council Bluffs—It is certainly delightful to hear our internal medicine men talk as they do today. Ten years ago when we talked as they do today we were jumped on all over. We are glad to see our friends come across. We recognize the fact that primarily there is really only one treatment for goiter and that is surgery. Ten years ago in this Society we had an awful mix-up on this subject. Twenty-five years ago at a meeting of this Society I advocated immediate oper-

ation on all cases of appendicitis the moment the diagnosis was made, the earlier the better. Do you remember that those who agreed in advocating this treatment were nearly thrown out of the room? The result of the prevailing sentiment on this subject was that nearly all cases we operated on were septic, and we were lucky to get through with a mortality of 50 per cent. We were talking then of late cases, and you are talking today about the late cases of goiter, and I predict that in the next ten years there will be less talk of toxic goiter than of removing goiter before the period of toxicity has arrived. Every goiter is toxic, and I defy anyone to tell me that exophthalmia may not also contain an adenoma. What are the various types of hyperthyroidism? We do not know. Let us allow the laboratory to find out. We like to have the internal medicine men work with us because they recognize, after all, that surgery is the only thing to do. In cases of toxic adenomatous goiter in the older men or women most of them have had an adenoma averaging sixteen years and then come in all shot to pieces, and these are the patients who are very bad risks. A patient with exophthalmic goiter should not die unless it be a vicious type of acute poisoning. Give Lugol's solution in large doses t.i.d., and you will have very few cases not ready for operation. We should operate on all goiters in people past twenty-five years of age. Prior to that time let us be conservative, but after twenty-five I believe that a goiter should be operated, for it is then past the so-called "adolescent" type. Every goiter should be looked upon with suspicion. After the individual is past twenty-five the goiter is not going to disappear. If these goiters were attacked surgically at that time we would have less talk of toxic goiter. As I remember, Dr. Luginbuhl made the remark last year that within a period of two or three years his work had increased 700 per cent, and I think that is true in the experience of various men in Council Bluffs. Evidently there is something going on, we do not know what it is. In looking back over my professional life I remember seeing old girls, and men too, going around with a toxic goiter, and I would almost beg them to have it out. We all know that these patients have had the condition for many years. In one such case, that of a woman, the patient finally went to Des Moines and saw Dr. Page, then came back and desired to have the surgery done. It was a difficult case to do; we had to fool her two or three times, but finally we caught her, and, remarkable to say, in four days the symptoms had changed completely. Such a patient should not be allowed to return to work too soon, as the heart has been damaged and should be taken care of by the internist. But all goiters are surgical, and if we are going to wait for toxicity in these cases we might as well wait for general peritonitis to develop in appendicitis. If a man has trouble with his appendix, take it out. If you anticipate trouble with goiter in patients past twenty-five years of age, surgery is indicated. As Dr. Bierring has said, after the symptoms come on operation is not going to change the

condition very much, but if operation is done before toxicity appears there will not be scars on the heart.

Dr. Luginbuhl (closing the discussion)—I did not present this paper for the purpose of making a plea for any one class of men in medicine, for I feel that the time is long since past when there should be any wrangling between internist and surgeon over the treatment of goiter. It is perfectly fair to keep the patient with a certain type of goiter under observation for some time, for we may get into real difficulty if too much of the thyroid gland is removed. In other words, if a patient with cystic goiter gives a history of miscarriages or premature births, we may assume that a calcium disturbance is present, which operation will perhaps aggravate instead of relieve; that patient should be watched before determining the type of treatment to be employed. What has just been said does not apply to the treatment of hyperplastic goiter. (Personally, I feel that in many cases, the hyperplastic goiter has been kept under observation for a period of from three to six months to determine whether thyroidectomy should be done, and that the patient has in no way benefited by the delay.) I do not believe that we can promise these patients much relief from medical treatment. The advocates of x-ray for the acute hyperplastic goiter may have one foot to stand upon, but we do know this: when such a patient finally resorts to surgery, the surgeon faces a much more difficult surgical problem. It should be distinctly understood that the borderline case with decompensation is a surgical problem, yet in analyzing some 500 cases, I have not always been able definitely to determine whether a given patient was going to make the grade or not. I do know that with a patient who has auricular fibrillation and who has had some decompensation, the end is nearly in sight, but from these statistics, I gather that a larger percentage of them will obtain relief over a longer period of time, and that their expectancy will be greater if they are operated upon than if they are allowed simply to drift on. There are, however, certain simple and practical criteria of operability in these cases. When the goiter patient with heart symptoms has been kept in bed until his condition apparently warrants operation, he should be allowed to be up and about. If he remains free from cardiac disturbance, and there is no marked rise in the basal metabolic rate, he is to be considered a good operative risk. If he is unable to meet this test, it is fair to assume that he could not cope with the stress and strain of operation. With these heart patients, convalescence may be prolonged, from three months to a year depending upon the age and physical condition of the patient, but more particularly upon the condition of the heart. From the time of operation on, he is essentially a cardiac problem. Digitalis must often be pushed to the point of tolerance, while quinidin is of service in controlling auricular fibrillation. The amount of activity to be permitted must be carefully supervised—in short, the patient must learn to live within the limitations prescribed by his damaged heart.

THE INDICATIONS FOR A COLOSTOMY

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Colostomy is performed to prevent or relieve intestinal obstruction, and its usefulness is limited to the colon and pelvic bowel, because ileocolostomy or ileosigmoidostomy is preferable to any form of colostomy when the lesion is situated above the pelvic gut and does not leave the patient with the disadvantages of the abdominal anus. Removal of the obstruction is not always possible, either from the nature of the obstruction or the condition of the patient, and a compromise measure in such cases may be adopted to provide either a temporary or a permanent exit for the intestinal contents. In the following conditions, however, a colostomy, either temporary or permanent, is our only recourse, always with the three-fold object in mind: (1) as a curative measure, or, (2) as a palliative measure to add to the comfort of the patient and prolong his life, or, (3) as an emergency measure to ward off impending death.

As a curative measure, colostomy may be desirable in

(a) Ulceration of the rectum.

Here the irritation of passing feces keeps up or aggravates the ulceration of the rectum and in turn the spasmodic contractions of the sphincters. The artificial anus above the lesion sets the bowel at rest because the feces do not come in contact with the diseased mucosa. In most cases the descending colon may be colostomized; but if the ulceration extends above the sigmoid it will be better to make the colostomy in the transverse bowel or cecum.

(b) Congenital malformation in which the gut ends in a blind pouch, imperforate anus, atresia of the bladder or urethra with the urinary outlet through the bowel and in mega-sigmoid.

(c) Inoperable fistula between the bowel and the bladder, urethra or vagina. Colostomy here gives the only chance of cure short of resection. The feces passing through the opening in the colon, no longer traverse the fistula, the rectum collapses, and the fistula spontaneously closes. The advisability of operation will depend upon the severity of the cystitis, the frequency of attacks of retention of urine and the physical condition of the patient.

(d) Inoperable and undilatable stricture of the rectum.

In the management of benign stricture of the rectum colostomy is one of our most valuable procedures.

Permanent colostomy is necessary in non-dilatable stricture when the patient's life is threatened with intestinal obstruction and immediate relief is demanded.

When ulceration is extensive there is an accumulation of pus and the danger of perforation. Intra rectal operation in the presence of this condition results in the formation of still more dense scar tissue and frustrates our efforts to enlarge the bowel caliber. Under such conditions an abdominal anus is preferable.

Temporary colostomy may be required where the tube is still patent, but owing to its diminished caliber the bowels are not thoroughly emptied and toxemia is present. In such cases diverting the fecal stream favors satisfactory peristalsis that the patient may be in better physical condition preceding more radical surgery. Where the diseased bowel is put at rest and frequently irrigated with antiseptic douches an astonishing regeneration often takes place and the stricture may be dilated later.

(e) As a permanent artificial anus it may be a preliminary step to extirpation of the rectum, or as a permanent part of the surgical procedure where it is impossible to reestablish the intestinal canal after resection of the diseased portions; as in malignant neoplasms of the colon, sigmoid or rectum, or also where the sphincters have been destroyed by disease, trauma or previous operation.

(f) In non-malignant obstruction of the bowel such as may be caused by adhesions, or kinks; and also for the temporary relief of extreme distention.

(g) Multiple polyposis of the colon with exhausting hemorrhage. Lynch¹ says "Sometimes, owing to severe hemorrhage in multiple polyposis of the rectum and sigmoid, the patient's life is in danger. A colostomy under such circumstances would very often save him".

(h) Rarely colostomy may be required for the removal of foreign bodies from the colon.

(i) Mega-colon.

Where excessive distention of the colon with atony of its walls, and where, in spite of active purgation and colonic flushings, feces accumulate and symptoms of obstruction frequently appear, right sided colostomy is indicated. The cecal colostomy at the commencement of the colon keeps the large bowel empty and permits that organ to contract and regain its tone. A few weeks rest and freedom from distention will sometimes transform a placid tube with no peristaltic power and an almost limitless capacity for

distention into a contractile viscus of limited caliber.

In all of the above mentioned conditions intestinal obstruction, pain, hemorrhage and diarrhea together with septic absorption from the obstructed and perhaps partially necrotic bowel endanger the sufferer's life.

These symptoms may be relieved by diverting the fecal stream, thus giving the diseased bowel rest from the constant irritation incident to contamination by the feces and the constant tenesmus. Early this functional derangement is apparent in the hyperstalsis and the hypersecretion in the bowel's attempt to rid itself of this irritant be it chemical, bacterial or inflammatory. Later on, as the disease becomes chronic atonic conditions supervene; the bowel musculature loses its tone; destructive processes extend to permanent loss of function and chronic invalidism and even death will follow unless prompt and efficient remedial measures are taken. In these ulcerated conditions the colostomy not only suspends the physiological activity but the artificial opening provides an opportunity to irrigate the diseased organ from above downward. When our patient is losing ground and becoming anemic from the continual hemorrhage or chronic ulcerative colitis, colonic polyposis or amebic dysentery, or from the toxemia of infective and suppurative conditions such as ulceration combined with stricture, multiple fistulae of the pelvic bowel communicating with other organs such as the bladder, vagina, fallopian tubes or multiple diverticulitis, the colon must be given absolute rest.

COLOSTOMY AS A PALLIATIVE MEASURE

With an intent of controlling the discomfort of the patient and of prolonging his life, colostomy may be considered to furnish temporary relief in some forms of colitis, i. e., ulcerative, dysenteric, tubercular or syphilitic, also diverticulitis, or to afford an avenue of local treatment, or prior to some radical operation upon the bowel below.

In cases of malignant disease where there are no symptoms of acute obstruction, and where it is intended to give relief to the patient from the irritation produced by the passage of feces over the growth and to remove from the growth itself this source of harm the advisability of colostomy may be somewhat debatable.

There is considerable difference of opinion regarding the proper time when colostomy should be performed in the inoperable cancer of the rectum. Some surgeons feel that the colostomy adds further to our patient's discomforts without

giving him commensurate advantage, while others believe that it provides the greatest possible relief. I am satisfied that colostomy prolongs the patient's life and if it is performed before he is emaciated it gives him much comfort.

COLOSTOMY AS AN EMERGENCY MEASURE TO WARD OFF IMPENDING DEATH

Obstruction of the colon from any cause may demand immediate colostomy. The great majority of these cases are cancer of the rectum.

The indications in other forms of obstruction from growths which are not removable, either in the gut itself, or invading or pressing upon it from the outside, are similar to those for cancer of the rectum.

For imperforate anus colostomy holds a special position. It is intended to ward off impending death, but it may or may not be regarded as a cure for the disease. In many cases, it is the first step in the process of cure. In every infant born with an imperforate anus, a perineal operation is first attempted, if this fails colostomy by some method is performed as an emergency and later an attempt may again be made to provide an orifice in its normal location.

THE BENEFITS OF A COLOSTOMY

The benefits of a colostomy combined with such other local treatment and irrigation as may be indicated for the management of malignant and other chronic disease of the colon and the pelvic bowel are:

1. When established as the preliminary step of colectomy or proctectomy it shortens the operation and lessens the mortality.

2. Intestinal obstruction, which always exists in the inoperable cancer and the benign stricture cases, is relieved.

3. Pain occasioned directly by ulcerations within the rectum, or indirectly by the excoriation of irritating discharge flowing through the anus, or by the tenesmus never ceasing, any of which prevents the individual from getting his much needed rest and sleep is diminished. The suffering is always lessened and sometimes completely relieved.

4. The foul discharges are lessened. The odor may be almost removed by the irrigations.

5. Exhausting diarrhea is overcome.

6. Hemorrhage can be checked or controlled.

7. Fecal impaction is obviated.

8. Perirectal inflammation and infection is limited.

9. Growth of a rectal cancer is retarded by the physiological law that disuse of a part is fol-

lowed by a diminished blood supply and atrophy. (Cooke².)

10. Relief of sepsis causes a partial and sometimes a complete disappearance of the cachexia.

11. A clean field is prepared for the subsequent removal of the neoplasm or lesion by diverting the fecal stream.

12. The individual is spared the agonizing death by intestinal obstruction. Also if the abdominal anus is made before the obstruction occurs the operation is attended with almost no mortality; but if postponed until a dernier resort, when the patient is in extremis, even a slight added burden may be more than the heart can stand.

13. Without interference rectal cancer usually develops complete obstruction and that within a year, sometimes within a few weeks, after the first evidence of stricture is complained of. The patient usually wishes to postpone the colostomy and may procrastinate until even obstruction occurs. I recommend operative interference as soon as the diagnosis is determined. If excision of the growth or anastomosis around it cannot be performed a colostomy is earnestly urged. The idea of a colostomy is of course repugnant to any individual but the relief obtained by the operation is so great that his mental attitude becomes cheerful, he is relatively contented and often expresses a wish that he had consented to the operation earlier.

THE MORBIDITY AND MORTALITY OF COLOSTOMY

The operation of colostomy is simple, speedily performed and frequently is accomplished under local anesthesia. The mortality would be practically nil were it not that these patients all suffer with intestinal obstruction chronic or acute, with sclerotic changes in the heart, arteries or respiratory system or kidneys, or thyroid disease, or diabetes. The deaths result from shock, suppression of urine, pneumonia or an acute exacerbation of a co-existing disease.

As we study the variety of conditions which demand the construction of a colostomy it becomes evident that it does not necessarily follow that because the source of the obstruction is relieved that the intestinal contents will, as an invariable consequence, flow out of the colostomy opening. The bowel may be so parietic after the abdominal orifice is provided that it is unable to function. In such cases the bowel will require the same consideration as though the obstruction had not been relieved. It is, therefore, evident that very extreme conditions and complications may have to be dealt with.

Interference with function after resection of the pelvic colon is a very important problem and is a serious drawback to the majority of methods of the treatment of rectal cancer. Blake prefers a permanent colostomy for all carcinoma above the middle rectum and such a course permits the most radical treatment of the local disease. Tuttle and others prefer to follow some modification of the Quenu method, which, in high cases, at least, does not require a sacrifice of the group of muscles which give fecal control. Even if this control is not perfect it may in some cases be more satisfactory than a permanent colostomy, but it frequently happens that the muscular control is inefficient and unsatisfactory, and, especially as contrasted with the sacral anus, a permanent colostomy is preferable.

If we search for the causes of the unsatisfactory functioning of colostomies that have been properly constructed surgically and which afford good fecal passage, we find that due consideration has not been bestowed upon the physiological conditions in the intestinal tract.

The commonest cause of the persisting discomfort in passable colostomies that have been done on account of inoperable tumors is a reflex spastic obstipation which is frequently occurring in the whole of the alimentary canal.

Neumann³ has shown that the wall of the intestine is able to convey an irritation in a centripetal direction, even when a short portion of the intestine itself is deprived of its mesentery. And, further, that the irritation first progresses for a short distance in the wall of the intestine and is only then transmitted to the centripetal nerves of the mesentery; and that in a complete section of the intestine the aboral parts become insensitive, while the sensitiveness of the oral parts is preserved.

These circumstances furnish an explanation of the further duration of the spastic phenomena in the upper alimentary canal in cases of tumors of the pelvic bowel, if the colostomy has been performed high above the site of the neoplasm and if the intestine has not been completely severed. In such cases irritation, which starts from the tumor and proceeds in the centripetal direction, has a sufficiently long course to travel before reaching the colostomy to pass into the nerves of the mesentery and to set up a further irritation, or, in incomplete section of the intestinal wall the stimulus may pass along the undivided portion of the bowel wall to the oral part and from there to the nerves of the mesentery.

The physiologically correct colostomy is not only a mechanical aid but also eliminates the ir-

ritating reflex influence of the tumor on the other parts of the alimentary canal and must be performed immediately above the tumor, and also the intestine must be completely severed. Jirasek⁴ illustrates the necessity for this by three instances in which colostomy was performed for cancer of the rectum accompanied by considerable spastic obstipation. The colostomy in two of these cases was far removed from the tumor, and in the third case the intestine could not be severed completely. In all of these cases the troubles persisted and in one of them they increased and resulted finally in obstruction. But the clinical picture, the roentgen examination, and the antispastic treatment show that the cause of the trouble was not an anatomical obstacle, but spasms of the alimentary canal above the colostomy.

*The sympathetic nerve supply to the bowel is somewhat segmental and each portion of the gut has a potential sphincter control; so that when a segment becomes terminal by operative procedure a functional change gradually occurs and there is a slowing up of the fecal current as it approaches the end of the bowel. This change permits the individual with a stoma to reassume control.

Jentzer⁵ emphasizes the functional adaptation which transforms the colostomy in time into a continent, sphincter-like opening. The microscope in a case described revealed the hypertrophy of the different layers forming the artificial anus, which had been perfectly continent for five years. He suggests that this hypertrophy might be accelerated and intensified by electric treatment. The abdominal muscles, under the influence of the electricity, act like a curtain to close the opening, while the smooth muscle of the intestine can be felt contracting around the fingers. Systemic electrical treatment would thus have a tendency to hasten the functional adaptation of the new anus.

In the several conditions indicating a temporary or permanent colostomy we always make a careful but frank statement of facts and conditions to the patient and obtain consent to whatever may appear necessary at the time of operation.

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DIAGNOSIS IN GALL-BLADDER DISEASE*

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It has seemed, in recent years, that an essayist writing on diseases of the biliary tract must preface his remarks with an apology. This has been particularly true when the diagnostic aspect of the subject was being presented, since the literature thereon is so abundant. My temerity in venturing on this topic is based on these grounds:

First: A small series of cases in a relatively short time offers opportunity for extensive study.

Second: Frequent use of cholecystography has offered an excellent diagnostic aid.

Third: Two signs, usually inconspicuous, have occurred with such frequency as to make it advisable to consider them.

The tendency to lean heavily on a single laboratory test as a diagnostic aid of almost pathognomonic significance has been a frequent fault of many. The basal metabolic rate has been too greatly emphasized in hyperthyroidism. The positive Wassermann reaction has been taken as conclusive evidence of syphilis. In like manner, visualization with tetra-iodo-phenolphthalein has been depended upon to sustain a gall-bladder diagnosis.

The dye test is of unquestioned aid in the differential diagnosis of gall tract disorders. Nevertheless, several conditions must be kept in mind lest the shadow of a supposed gall-stone or an absence of gall-bladder visibility tempt an over-anxious surgeon. A renal calculus is a frequent means of confusion and only a pyelogram or a lateral film will definitely determine the location of the stone. Calcified mesenteric glands likewise cause suspicious shadows. Gas bubbles many times present shadows which are most suggestive of calculi. However, successive films at subsequent hours will rule out this possibility. Occasionally in a hypermotile stomach the capsules will be so rapidly ejected into the intestine that the dye will pass beyond the gall-bladder. This is not a common occurrence and with careful observance of the schedule for administration at least a portion of the dye should reach the gall-bladder. Cholecystography is but a new link in the diagnostic chain and with its use a much more precise knowledge of the diseased gall-bladder is made possible. We would emphasize this fact, that it should not replace the other methods of diagnosis.

Two methods of administration of the dye are recognized. Both the oral and intravenous routes have been used in our cases, but time permitting, and in the absence of contra-indications, the capsules have been given by mouth. Evarts Graham and his co-workers have so excellently described the technique of administration that it requires but brief mention. We have attempted to follow the plan in detail. At noon a meal rich in fats is given preceded by a cleansing enema. No other food is taken. Directly preceding the ingestion of the capsules twenty to thirty grains of soda bicarbonate is given. This, we have found, aborts the frequent nausea described by some writers. The amount of dye used varies with the patient in the ratio of one gram of dye to each five pounds of body weight. In heavier individuals a slightly smaller percentage of the dye is used. The capsules are divided into four equal portions, with the first quarter given at 8 p. m., followed at fifteen minute intervals by the remaining three doses. No breakfast is allowed, and films are taken throughout the morning. No evidence of change in pulse, respiration, or blood-pressure have been recorded. Urinalysis the following day has never shown albumin, sugar, nor casts that we could attribute to the use of the dye.

The intravenous method is more rapid, but there are attendant dangers. The patient is rendered more susceptible to toxic manifestations due to the rapid assimilation of the drug. Further, the drug is extremely irritating to tissue if any escapes from the vein. We had one case illustrating this fact. An elderly man, well beyond seventy, with markedly sclerotic vessels received the dye intravenously. He evinced no pain or burning during the administration nor following but appeared two days later with a greatly swollen and hyperemic arm. With daily compressing the resultant slough was limited to an area the size of a quarter. This, it must be remembered, was from an imperceptible amount of the dye escaping from the vein. It is evident that the intravenous method must be used with great caution.

The establishment of an accurate and definitely limiting diagnosis is a matter of real satisfaction to the physician. The gall-bladder, however, offers a greater variety of symptoms than any other viscera. The picture of frequent occurring paroxysms of colicky epigastric pain with belching, indigestion, jaundice, and definite localized tenderness under the right costal margin in a middle-aged, somewhat obese individual justifies the diagnosis of gall-stones. On the other hand, the individual who complains of tiredness, lack of

*Presented before the Seventy-Seventh Annual Session, Iowa State Medical Society, Cedar Rapids, Iowa, May 9, 10, 11, 1928.

initiative, anorexia, vague gastric symptoms, and an accompanying loss of weight, presents a much more difficult problem. However, the first case might well reveal an absence of stones and the pain be due to contractions of the gall-bladder exerting a pull on the surrounding adhesions. The latter example could well be that of a solitary stone in the fundus, quiescent save for its irritating effect on the gall-bladder mucosa and the consequent deficient biliary function.

But as the symptomatology of gall tract disease becomes complex, it becomes the more interesting. Since early school days we have been taught that the triad of "fair, fat, and forty" was the type subjected to biliary disorders. This is in a measure true, but by no means always. Thirty-six per cent of our series have been over sixty-five years of age and not infrequently of slender build, the type we have so frequently classified as the "gastric ulcer type".

Two diagnostic features have struck us as worthy of mention because of their departure from the usual diagnostic picture. The first of these is the symptom of migraine. For the past ten years the frequency has been noted, and recently it has received careful attention. The marked relief following operation has justified the conviction that this is no mere coincidence. Migraine has been attributed to many and varied etiologic factors and we would not be misunderstood that we consider gall-bladder infection as the cause, *sine qua non*, of migraine. Many of our patients have complained of attacks of sick headache just preceding the beginning of a gall-bladder colic, a sort of premonitory sign. These attacks are usually associated with constipation and are followed by the usual gastric picture. It is recalled from our cases in past years that the symptom of migraine was more often associated with the cases of cholecystitis rather than those having calculi present.

Absence of pain in cases of cholelithiasis is a symptom we would mention. In a recheck of our cases it is interesting to find that at least ten in which a solitary stone was present and often encysted in the gall-bladder gave no history of pain other than a certain tenderness in the right upper quadrant of the abdomen. This was not true in cases wherein the stones or "sand" were motile or were in the ducts. In this type of case occur the colicky pains usually described. The absence of pain in instances of larger calculi seems added proof to the theory that there is some agent other than muscle contractility alone which operates toward emptying the gall-bladder.

Our series of forty-two cases from April, 1927 to April, 1928, were not all checked by the dye test. Several were entered as acute surgical abdomens and operated immediately following verification by physical examination and laboratory findings. In several other cases the diagnosis was so certain that it was not thought advisable to subject the patient to the further expense of x-ray confirmation. Since the first of the year, however, cholecystography has been made a routine procedure in all gall-bladder cases. This includes eleven cases during the current month not included in this report.

Of the forty-two cases, 69 per cent were females, with an average age of slightly over forty-nine years, distributed as follows:

20-30 years	4
30-40 years	8
40-50 years	10
50-60 years	8
60-70 years	8
70-80 years	3
Over 80 years	1

It is interesting to note the variation in diagnosis between roentgenologist, surgeon, and pathologist. The pathologist, of course, is in the position of whip hand but he cannot visualize the operative appearance from the dried and shrunk specimens which come to him hours or days after the removal of the tissue. There was complete agreement between the three departments in but twenty cases! The x-ray man and the surgeon were at differences in but three cases, giving them a percentage of over 80 per cent agreement.

These three cases deserve explanation to justify the roentgenologist. In two of these, both reported as non-filling gall-bladders, additional pathology was reported in the pyloric end of the stomach. Clinical diagnosis likewise gave this picture, and operating to relieve the obstruction, normal gall-bladders were found in each case. In one, the unbroken capsules were found in the stomach forty-eight hours after administration. The oral administration of the dye is contraindicated when pyloric obstruction is suspected. Chronic hepatitis was the only pathology found in the third case, but this may have accounted for the absence of the gall-bladder shadow. One interesting case combined a pathological gall-bladder with a true pernicious anemia.

Following transfusions, and the much more successful and preferred administration of liver extract, the patient was rendered medically fit to withstand operation and following a cholecystectomy enjoyed an uneventful convalescence.

In a paper on diagnosis operative technique has no place. Suffice it to say that with operative interference in every case cholecystectomy was the operation of choice save in three instances. In two of the cases drained, the ages of eighty-four and seventy-eight combined with circulatory dysfunction made mandatory a cholecystotomy under novocain.

The mortality was 4.3 per cent; two cases in the series. The first of these was a carcinoma of the gall-bladder which was opened under local anesthesia and immediately closed. The patient, terrifically jaundiced, died in twelve hours of cholemia and hemorrhages. The second death was a cerebral hemorrhage occurring on the fifth postoperative day of an apparently normal convalescence.

The question of drainage following cholecystectomy is always discussed. We drain every case for forty-eight hours with a small piece of rubber tissue. We feel that even sterile bile should it escape, is injurious to tissue, particularly the peritoneum. A small drain would rapidly carry this away. Secondly, a forty-eight hour drain does not seem to inhibit healing for all sutures are out on the ninth day and the wound is practically always dry.

CONCLUSIONS:

1. While cholecystography is not of itself absolute in gall-bladder diagnosis it is a valuable aid in the diagnostic armamentarium.
2. Migraine is a frequent symptom of gall-bladder disease.
3. Pain is not a necessary indication of the presence of gall-stones.
4. Cholecystectomy is the operation of choice in gall-bladder disorders, followed by drainage for forty-eight hours.

Discussion

Dr. Howard L. Beye, Iowa City—I feel that the Society is to be congratulated on Dr. Fritz' timely paper. As he has brought out and emphasized, cholecystography cannot be the court of last resort in all cases any more than can any other laboratory test in diagnosis. There are bound to be certain sources of error. In the first place, when the dye is given by mouth it may not be absorbed. Under those circumstances there will be apparently some dysfunction of the gall-bladder because it will not be visualized in the x-ray. There may be confusing shadows furthermore which will render a diagnosis inaccurate. It must be remembered that the test determines the function of the gall-bladder. A gall-bladder may contain stones and be diseased and still the dye will enter and will be visualized in the film. In other words, such a gall-bladder is functioning in apparently a normal manner. From our

experience, we have come to the conclusion that the intravenous method of administration of the dye is preferable to the oral route. We have come to this conclusion after trying out both methods rather extensively. The objection which has been raised that the intravenous method is likely to produce a cellulitis from leakage of the dye into the soft tissues is well sustained, but this can be obviated if the dye is given carefully. The needle should first be passed into the vein and then salt solution injected in order to be sure that the needle lies well within the vein. When this has been ascertained, the dye solution is injected after which normal salt solution is passed in sufficient amount to cleanse the needle and when the latter is then withdrawn there is no danger of any of the dye escaping outside the vein. In the average cases of gall-bladder disease the diagnosis is made without difficulty by the characteristic symptoms and findings. In these cases I do not feel that the Graham Cole test is necessary for diagnosis and should not be used as a routine procedure. Its greatest value lies in differential diagnosis, and in our experience it has been of particular value in differentiating between lesions of the kidney and gall-bladder and between peptic ulcer and gall-bladder disease. In such instances it may be the court of last resort and will determine the diagnosis. It, not infrequently, will aid in visualization of gall-stone shadows in the x-ray film. Such shadows may show as either negative or positive, and, in our experience, we have been able to demonstrate stones in the gall-bladder by this means when their presence could not be determined otherwise. A "silent" stone within the gall-bladder may produce symptoms without pain just as a stone in the gall-bladder may produce attacks of extreme pain without tenderness. In our experience I do not recall any cases in which there has been the association of migraine and gall-bladder disease. Dr. Fritz has had a very interesting series of this combination and it is well worth calling out attention to them.

PREVENTION AND EARLY RECOGNITION OF PULMONARY TUBERCULOSIS IN THE YOUNG ADULT*

JAMES B. KNIPE, M.D., Armstrong

There are two diseases afflicting the human race that far out-rank all other pathological conditions in causing prolonged suffering, both mental and physical, and economic distress to the unfortunate victim and his family. I refer to pulmonary tuberculosis and cancer.

With all due respect to the notable advance made by medical science in the past twenty-five years in battling the progress of these two sinister afflictions, yet all too many of the afflicted ones

*Presented before the Seventy-Seventh Annual Session, Iowa State Medical Society, Cedar Rapids, Iowa, May 9, 10, 11, 1928.

progress slowly downward before the eyes of their despairing relatives and friends until a merciful but tardy death finally removes them from the scene.

Of the two, pulmonary tuberculosis outranks cancer as the greater evil, if for no other reason than the fact that it is essentially a disease of young adult life (the greatest incidence occurring between the ages of fifteen and thirty-five), while cancer's greatest incidence, as we know, occurs more often after the meridian has been reached and life for its most part has been lived.

There is no event that occurs in the doctor's practice that is more heart-rending than to see a young man or young woman, just budding into young manhood or womanhood, bright and ambitious, stricken with pulmonary tuberculosis and slowly, slowly fade each day before the eyes of their distracted parents and finally pass out into the "great beyond" at a time when they had just begun to live; or a young mother with a small brood of children knowing that each day as she grows weaker that soon her little ones will be left to the tender mercy of strangers to get along as best they can; or the young father, the breadwinner, who is just making a start in life and is taken sick. His small hoard is soon exhausted and he even lives long enough to see some of the misery that overtakes his young family and will continue to overtake them after he closes his eyes in death. Surely these young parents suffer many mental agonies greater than death before the final dissolution comes.

I repeat then, that taking into consideration the number of victims attacked, the age at which the attack comes, the chronicity of the disease, the long fight for recovery with the great possibility of final defeat in the end, the economic distress occasioned by the long, long illness and the prolonged mental agony sustained by the victim and his family, that pulmonary tuberculosis still ranks first as the greatest curse to the human race and it seems to me that it still remains our greatest problem and too much cannot be written or said or done about preventing this disease in the young or being able and willing to recognize it early enough so that the victim will have some chance of a fairly speedy and ultimate recovery.

The responsibility of prevention and early diagnosis rests to a large extent on the general practitioner of medicine. The specialist in chest diseases needs no admonition along this line. He knows how to recognize early tuberculosis and he knows how the evil can be prevented but only in a small percentage of cases does he have a chance to make an early diagnosis. The case

usually comes to him late. It is the family doctor who is in position to do the greatest good to the greatest number along the line of prevention and early diagnosis. It is the family doctor holding the respect and confidence of his people who first comes in contact with the candidate for tuberculosis. It is the family doctor who knows all the idiosyncrasies of his patient, their family histories, their environment, their mental make-up and their social and economic status and it is he who can best advise them what to do and what not to do to keep and preserve their health. It is to him that they first come with their story of ill-health and it is his duty to be on the alert and able to recognize the early signs and be willing to take the time for careful investigation, and when once he has made up his mind, have the courage of his convictions and sufficient earnestness of purpose to impress the patient and his family that proper treatment must be instituted before it is everlastingly too late.

First, what can we do in the way of prevention? When an infant is born into the world its body is free from tubercle bacilli but Fishberg of New York, Lampson of Minnesota, Hamburger of Vienna and many others have demonstrated by numerous tests that in different age groups from one year on, more and more react positively to tubercle bacilli until at the age of fifteen more than 90 per cent respond positively to the test, indicating that they have taken into their systems bacilli producing a primary infection, therefore the prevention of partial infection in childhood is impossible and the best we can do is to try and prevent massive infection by keeping the child from associating with a careless consumptive or a tuberculosis carrier.

Inasmuch as the infection from the tubercle bacillus is practically universal in the United States and Europe, why is it that only about 1½ per cent of the people develop recognizable lesions? The answer can be made in one word, which is resistance, hence if we are to prevent this disease in the young we must preach against anything that will lower the immunity or cell resistance of the individual. Since so many cases follow resistance lowering diseases such as measles, whooping cough, pneumonia, etc., we should strive to keep our young people from contracting these diseases if possible and if they do contract them, we should treat them with a longer period of rest, and keep their nutrition up to the highest possible standard.

Dr. Adolphus Knopf of New York in a recent article in the A. M. A. Journal brings out the startling fact that whereas the death rate from

pulmonary tuberculosis for males and females in the age group from fifteen to thirty was about the same up to the year 1918, since that time the death rate in females has greatly exceeded the male and at the present time is 38 per cent greater. He accounts for this fact in a large measure to the inadequate manner in which the present day girls go clothed, thus exposing themselves to the elements with subsequent chilling of the body and development of resistance lowering diseases, and I am sure that, in part at least, he has "hit the nail on the head" and this is one place where advice from the family doctor or anyone else has little weight. If the regulator of women's fashions in clothes should decide to go a step farther and decree that a woman to be in style should wear a highly decorated fig-leaf and nothing else, your daughter and my daughter, the "Colonel's lady and Judy O'Grady" would each and severally wear a highly ornamented fig-leaf and nothing else both summer and winter, therefore we should get in touch with the leaders of fashions for women, whoever they are, and try and show them the necessity of making it fashionable for the "female of the species" to go better clothed.

Another reason advanced by Dr. Knopf for the greater incidence of tuberculosis in the young female of the present age was inadequate nutrition. I have been consulted many times in the past few years by young women who complained of being always tired, who were unable to throw off colds easily, who were pale under the artificial face coloring and whose hemoglobin and red blood cell count were low and find on questioning them that they were subsisting on one meal a day. No breakfast at all, possibly an orange for lunch and a fairly good evening meal. Their reasons for not eating were, as a rule, not economical ones. They were afraid they would get fat and lose the fashionable boyish figure and besides they were up late every night and could sleep an hour later in the morning if they went without breakfast. Needless to say these girls were fine candidates for pulmonary tuberculosis unless they could be induced to get back into the habit of going to bed earlier and eating three good meals a day, figure or no figure. If we are going to prevent pulmonary tuberculosis in the young female, we must insist on their keeping up their nutrition, and we must try and convince them that the State of Iowa is no Garden of Eden in the winter time and that sufficient clothing must be worn to protect the body from the cold.

Much more might be said about the habits of the young male and female that go to lower their

vitality but if the physician will bear in mind that anything that tends to lower the resisting power of his young patient places that patient in position to suffer a possible re-activation of the tubercular infection which he contracted in early childhood and do all he can by advice and otherwise to keep his young patient's resistance up to "par", he will have done much toward lowering the incidence of tuberculosis in the young adult.

We now come to the problem of early diagnosis. That it is a problem, no man in general practice will deny. The family doctor, if he does his duty to his patient is up against the proposition of detecting early tuberculosis when present and on the other hand not making the mistake of diagnosing active tuberculosis when it is not present. This latter mistake is almost but not quite as great an error as overlooking incipient disease. When such an error is made, he throws an unnecessary scare into the minds of the patient and his family from which the patient at least may never fully recover, psychologically speaking, as it frequently makes of him a hopeless hypochondriac with the ever present thought that maybe his family doctor was right after all in his first analysis.

In summing up the signs and symptoms of incipient tuberculosis, I would place them under three heads, viz.: the positive signs, the probable signs and the presumptive signs.

There are only two positive signs of pulmonary tuberculosis: (1) the finding of tubercle bacilli in the sputum. (2) Hemorrhage from the lungs of a dram or more of bright red, salty, frothy blood. It should be needless to say that every suspected case of tuberculosis should have his sputum examined early and often. Like all laboratory tests, of course, a negative doesn't mean as much as a positive result, but if one gets a positive result he knows he is dealing with a case of tuberculosis while repeated negative results mean nothing except that he must draw his conclusions from other signs. I think also we are justified in making a positive diagnosis of active tuberculosis if a patient has an undisputed hemorrhage of a dram or more of red, salty, frothy blood from the lungs. This condition occurs so rarely in other conditions in the young adult that I believe it should be considered one of the positive signs of the disease. Unfortunately most early cases show neither of these signs and our diagnosis must be made from the probable signs and presumptive evidence.

There are six probable signs of suspected tuberculosis of the lungs. (1) Positive x-ray findings. (2) Chest examination with the finding of persistent, fine, crepitant rales in the upper

portion of either lung. (3) History of pleurisy with effusion or fistulo-in-ano. (4) Variations of the daily temperature with moderate afternoon fever. (5) Rapid pulse when patient is at rest. (6) A decided cough that has lasted and resisted treatment for over eight weeks. The first mentioned sign of positive x-ray findings is very important provided the films possess a high degree of technical excellence and be interpreted by someone with an adequate degree of x-ray experience, otherwise they are worse than useless and may mislead the practitioner in arriving at his conclusion. The next probable sign to be considered is clinical chest findings. Inasmuch as we are considering only early signs, I think we can well omit mention of inspection, palpation, percussion, etc., and confine ourselves to the auscultatory findings. The existence of fine, crepitant rales in the upper portion of either lung is very suggestive of tuberculosis. I take it for granted that every physician is familiar with the technique of bringing out these rales by having the patient take a deep breath, exhale and cough at the end of expiration. They are easy to find when present and are the most constant and reliable chest finding in early tuberculosis. I do not want to minimize inspection, palpation, percussion, etc., and much can be learned from these methods properly performed but in early tuberculosis when chest signs are very often entirely negative, I think the average man will do better by concentrating on the one reliable constant sign which is to be found by auscultation. I wish also to add that this sign must be persistent, that is, it should be elicited daily for a given number of days to be of the greatest amount of value as a symptom of the disease. A history of pleurisy with effusion or fistula-in-ano is of much importance due to the fact that all authorities unite in the opinion that all pleurisies with effusion or ischio-rectal abscesses that cannot be definitely accounted for in some other manner are of tubercular nature and probably secondary to other tubercular foci elsewhere.

One of the most valuable diagnostic signs is by the use of the thermometer. The temperature should be taken four times daily at eight in the morning, noon, four and eight in the afternoon and an accurate record kept for a period of at least two weeks. A temperature showing a morning normal or sub-normal, gradually ascending through the day to above 99.5, unless it be due to some other form of infection is apt to mean tuberculosis. The temperature should be taken with an accurate thermometer, left in the mouth for from five to ten minutes and taken after a

period of rest. A pulse rate of more than ninety after an hour's rest is an important sign if other diseases that cause a rapid heart can be ruled out. A persistent cough that in spite of treatment hangs on eight weeks or more in a young person is highly suggestive and should set the physician at work at once to find out whether or not the patient is tubercular.

The presumptive symptoms are eight in number and are only of value when taken in conjunction with some of the probable or positive signs or as a presenting symptom that starts the physician on an investigation that leads to a proper diagnosis. They are as follows: (1) Family history. (2) History of massive infection. (3) Loss of weight. (4) Chronic fatigue. (5) Night sweats. (6) Anemia. (7) Low blood-pressure. (8) Digestive disturbance. Family history showing tuberculosis in parents, sisters, brothers or even uncles or aunts is of value, for while we know that tuberculosis is not directly inherited, yet the tendency to tuberculosis exists in some families the same as red-hair or bow-legs.

Of much greater importance is the history of massive infection. In other words, whether or not the patient has at some time in his life been intimately associated with a consumptive. Loss of weight and chronic fatigue are the symptoms of so many conditions that unless coupled with some of the more important symptoms are of little value, although like anemia and amorrhoea in the female, they may be the presenting symptom that will put the doctor on the right track. Night sweats occurring in the young adult over a period of time, as well as disturbance of the digestive tract should at least make a physician think of beginning tuberculosis of the lungs and direct his investigations accordingly.

The diagnosis of early tuberculosis cannot be made from one or two symptoms alone but the whole clinical picture must be considered and studied over a period of several days in order to arrive at a correct conclusion. If the physician will use care and good judgment, it need not be so very difficult and a practically accurate diagnosis is within the capabilities of every careful physician. One thing we must keep in mind and that is the fact that we are not trying to find out whether the patient is infected with tubercle bacilli, or not, but rather whether or not he has an active tubercular lesion in his lungs which is causing ill-health at the present time or if not checked will cause ill-health in the immediate future. In summarizing I wish to stress the following points.

1. That pulmonary tuberculosis in the young is still one of our greatest problems.

2. That the general practitioner of medicine is in position to do the greatest good to the greatest number along the lines of prevention and early diagnosis.

3. That inasmuch as the larger majority of all people are infected with tubercle bacilli before the age of fifteen, more attention should be paid in preventing resistance lowering diseases and vitality robbing habits in the young in order to keep active lesions from supervening.

4. That while the diagnosis of early tuberculosis is not easy, still it is within the ability of all careful physicians, and more care should be given patients who present themselves with one or two of the presumptive signs as previously outlined, in eliciting other signs and finally arriving at a correct conclusion before the disease has become advanced.

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Discussion

Dr. J. Carl Painter, Dubuque—It has been a great pleasure to hear such an excellent and practical paper on tuberculosis. I am sure that the physicians who are working with the tuberculosis problem would be very happy if every general practitioner had the understanding and practical outlook of the subject that Dr. Knipe has shown us by his paper. I would like to stress the importance of the problem of tuberculosis in the young adult, by making this statement: Although in the last ten to twenty years the death rate from tuberculosis has been decreased, we know that the incidence of the disease is greater in young boys and girls. I am glad the essayist has placed the responsibility upon the general practitioner. The specialist in chest diseases can worry along after getting the advanced cases and do a little, but the responsibility for early diagnosis rests with the general practitioner. This great field is not being covered, and there is no question but that the responsibility is upon the general practitioner. This is why the National Tuberculosis Association has planned the campaign—"Let your doctor decide". That is, teach the people to go to the family doctor and have a diagnosis made. That is why we are trying to reach the doctor as well as the patient. The psychology of the patient with early pulmonary tuberculosis hinders diagnosis of the disease. It requires more nerve on the part of the general practitioner to make the diagnosis of early pulmonary tuberculosis than to make the diagnosis of appendicitis or of some other diseases. If the patient has pain in the belly he will believe that the doctor is right, but when the diagnosis of tuberculosis is made he will go to some one else before he will believe

it; he will go to a man who has not the diagnostic ability that you possess. Therefore it takes more nerve to make a diagnosis of early tuberculosis and stick to it than is the case with many other conditions. There are two important factors in the prevention of tuberculosis: First, avoid infection. The avoidance of infection is one thing that absolutely must be done, and this is accomplished by removing all children from contact cases of tuberculosis. If you are going to prevent the child from contracting the infection he must be removed from contact with active cases of pulmonary tuberculosis, particularly if patients are careless. Second, increase resistance, as has been thoroughly brought out by the essayist. It is unquestionably true that if all young people from fifteen to twenty-five years of age would consult the family physician while they are still perfectly well, the medical profession would be able to prevent tuberculosis universally. Just one instance of lowered resistance, an actual case of a young man who after graduation from high school went to work, carrying a dinner pail with a cold lunch and at the end of the day rushing home in a hurry to get out with his friends on the street; not a bad boy, but he likes to loiter around, does not eat the proper meal in the evening and gets back home at 1 or 2 o'clock a. m., is tired when he arises in the morning and takes only a cup of coffee before going to work. If he would only get into the hands of a physician who would tell him how to live he probably would not develop tuberculosis. This young man's father died when the boy was four years of age, and the mother told him his father was very careless. The physician of today must be a teacher of health habits of young people. As to early diagnosis, when the general practitioner fails to diagnose the disease it is because he allows the patient to direct him. In other words, the patient comes into his office and says, "Doctor, I have a bad cold, give me some cough medicine", and he gives him cough medicine. He has known him all his life and does not think of tuberculosis. The young man goes away, does not improve, then goes to someone who makes a diagnosis, and treats him. The patient criticizes the first physician. This is the natural psychological attitude of the patient toward his physician. A negative diagnosis is the most difficult one to make. In the presence of rales, moisture, and all the physical signs referred to by the essayist, oftentimes one can make a positive diagnosis, but when you undertake to make a negative diagnosis you need all the data you can get. I believe you will back me up when I say that no diagnosis of tuberculosis should be made in a suspicious case without submitting the patient to x-ray examination with the best facilities for making the plates and interpreting the findings. Then again, pleurisy with effusion. How many times does the man have pleurisy and then it goes away until finally he has definite development of effusion, and the doctor takes out some of the fluid or leaves it and tells the patient he will be all right, when as a matter of fact he is all run down. Remember that

a pleurisy with effusion of clear fluid or a greenish-yellow fluid is so pathognomonic of tuberculosis that we would say that the ordinary pleurisy with effusion is practically always indicative of tuberculosis. I know you will not agree with this, but I can quote statistics that prove it at least to me. Pleurisy with effusion shows a reaction of the pleura to the tubercle bacilli. You may tell the patient he will get well under tonics, and he does improve, but how much better to tell him frankly that this finding is a symptom of early pulmonary tuberculosis. It is usually a mild lesion that is easily curable. Tell these patients how to live and take care of themselves in the future, and they will never have tuberculosis. It is sad to have them come back in five or six years perhaps with a bad lesion in the same side of the chest. Sometimes unexpected tuberculosis will be revealed by the x-ray, as shown in the experience of men doing a great deal of work with contact cases; in other words, where the father and mother have tuberculosis, when the children are carefully x-rayed tubercular lesions have been found although physical findings of the disease were not present. I am not saying that one should always use the x-ray in making diagnosis, oftentimes it can be made without. But when it comes to the negative diagnosis in a suspicious case I would suggest that you secure all the data available. As to temperature, a lady asked me if a person could have active tuberculosis without a temperature. I replied in the affirmative, inquiring why she asked the question. She replied that she had lost weight for five months and was coughing much worse than her sister who was in a sanitarium, and that the doctor took her temperature and said she had no fever, therefore he concluded tuberculosis was not present. I think these patients would be better off if we would consider that all cases with temperature are tuberculous, but I can't go quite that far. In the greater number of cases the presumption is that they are tubercular, but there are exceptional cases. I will close with this suggestion to general practitioners: Think of tuberculosis when you examine your patient. The patient with tuberculosis does not say, I have a pain right here or here or here. Therefore remember tuberculosis when you examine your patient.

Dr. Frank M. Fuller, Keokuk—In the presentation of this important topic the essayist has emphasized the fact that the responsibility of preventing early tuberculosis rests to a large extent on the general practitioner, and that it is the "family doctor" who is in the best position to make the diagnosis. Likewise in Dr. Painter's discussion the emphasis has been along that line. The question also was raised as to the reaction of the patient when informed that the diagnosis of tuberculosis has been made. In a recent address on cancer, Dr. Bloodgood stated that the American people are willing and ready to be educated along the line of any demonstrable fact. I think the physician who is willing to take into consideration the facts of tuberculosis, study them and then apply them to himself, will better understand

Dr. Bloodgood's statement. But it is so easy to allow the patient, as Dr. Painter suggests, to direct our action, instead of following out the proper examination of these suspicious cases. There are cases of tuberculosis in which the mother has recognized that Mary is "getting consumption", she sees the signs and suspects it, but when Mary comes to the office the doctor never suspects she has tuberculosis unless he looks for it. Mary appears to be as well as any one of us here today, and yet she has tuberculosis in the stage that is the only stage wherein we are going to be of any value to Mary if we recognize the condition. You say that psychologically it is a dangerous thing to the patient to make a positive diagnosis of tuberculosis. I admit this is true, but it is the utmost tragedy to allow that patient to go out without an early diagnosis of tuberculosis when we recognize the condition. If you are worthy of the confidence of that patient, and we assume you are, for a certain degree of confidence is what brings them to your office—that confidence will be strengthened and established by carrying out an investigation along the lines laid down in the paper. And when you do this, the American public is ready to be educated along the line of any demonstrable fact, and you can readily save your patient. Say to him—I do not know whether you have tuberculosis or not, here are many signs that make me suspicious, and if you have confidence in me you will do the things I tell you to do and if you have tuberculosis I want to have the satisfaction of doing my duty. If we do the things the essayist has recommended I do not think we need have any fear about the psychological effect on the patient, because establishment of the proper regimen in the case will be of value and bring only good to the patient.

Dr. J. F. Ritter, Maquoketa—For thirty-two years I have done my scrapping alone with myself, and might be termed by some of my confreres a radical conservative. I have been working along new paths, but I quite endorse the paper and the views given in the discussion regarding the causes of tuberculosis. There is one thing I think we have neglected, the measuring of what we might call the physical chemism, or the chemical balance constituting normal metabolism. We can go back to the initial symptoms of almost any chronic disease and find defective metabolism. What is the source of defective metabolism? Low vitality, which we can very frequently trace to some defective function of the endocrines. It is becoming more generally recognized by many of our leaders that the endocrine hormones furnish the gasoline and oil that keep the machine on high. Leading up to adolescence, when tuberculosis has its greatest chance, growth is rapid, and we have what might be styled the second fatigue period of youth, the tissues being soft and non-resistant like those of a young colt put in with a seasoned horse for spring plowing. He cannot stand the physical dissipations mentioned by Dr. Painter, and sooner or later there is exhaustion of one or more of the ignition glands of the system—pituitary,

thyroid or suprarenal. These constitute, I believe, the ignition system of the organism. As long as we can keep these working at par, they furnish the hormones to fan the vital flame and swell the life-stream, insuring normal function of all the organs and protecting against the entrance of disease. Under stress, especially in acute disease, the quickest to be depleted is the suprarenal capsule. All of you can trace slow convalescence to impaired function of the suprarenal capsule. Another point that has been mentioned is low blood-pressure, which is very common in connection with almost any asthenic disease, especially tuberculosis. I received from a personal friend some statistics gathered in one of the government hospitals of Minneapolis with over 800 patients of average, unselected cases of tuberculosis in which the blood-pressure averaged less than 100. A low systolic is not so important, but as a rule the diastolic pressure is comparatively high, resulting in low pulse pressure, which appears to be an absolute criterion or yardstick to measure the grade of metabolism that obtains in that body. If we can give something that will produce an increase of pulse pressure, we thereby tend to restore metabolic balance and enhance the chances of recovery, whether the case is one of tuberculosis or any other asthenic disease—and this can be done. The point I desire to make is the fact that interstitial serum in 1 c.c.

doses, is dependable in increasing the pulse pressure by raising the systolic or lowering the diastolic reading, or both. To the extent this is done, systemic metabolism is increased, restoration of chemical balance is approached, and resistance to disease processes restored, greatly improving the patient's chances of recovery.

Dr. Knipe (closing)—I thank the doctors for their able discussion of my paper. I was quite sure that not all of you would agree with one of the positive signs I mentioned in connection with early tuberculosis, and that is hemorrhage from the lungs of bright red, salty blood. Of course many other conditions cause hemorrhage of the lungs, but they occur so rarely in the young that if the individual really has an undisputed hemorrhage from the lungs and he tells you that he spit up a mouthful of blood that tasted salty and was frothy, it seems to me this is a positive sign of tuberculosis in a person between fifteen and thirty years of age. I recently had as a patient a young man who had always been well as far as he knew, but one day he came in and said—"This morning while walking down the street I coughed and my mouth filled with bright red, salty blood". He was perfectly healthy otherwise, therefore it was impossible to lay it to anything but tuberculosis. He later developed a real case of pulmonary tuberculosis.

INVERSION OF THE COLOR FIELDS IN CARDIOSPASM

JAMES E. REEDER, M.D., Sioux City

Lesions of the esophagus are more common than is generally supposed, next to malignancy cardiospasm is next in frequency.

Purtan in 1821 reported the first case of cardiospasm.

Recently the subject has been given more attention due to the advancement of endoscopy.

Sippy, Einhorn, Smithies, Plummer, Jackson, Vinson and others have reported a large number of cases. Vinson the largest number—415 cases.

Up to the present there has not been an accepted explanation of the disease. Jackson has demonstrated in a number of cases it is a phrenospasm. One author suggests some form of protein sensibility or allergy.

The symptoms may be mild with just a slight feeling of substernal obstruction upon the passage of food. If the history shows dysphagia, localized pain, regurgitation of food, a special examination of the esophagus is demanded. Where there is great variation in the ability to swallow a cardiospasm should be suspected.

Given the above history, I always take the visual fields and have seventeen cases to report

which all show more or less of an inversion of the color fields.

In going through the literature I have not found this symptom reported in any of the series.

Vinson classified his cases into two groups. The first group he states were prone to psychoneurotic tendencies, while the second group do not as a rule exhibit psychoneurotic tendencies. It is the last group he reports.

In the seventeen cases observed all exhibited psychoneurotic tendencies, their ages ranging from seventeen to sixty-eight years and from the mildest type of dysphagia to almost complete obstruction.

One of the severe cases which had been standing for a period of twelve years had been previously diagnosed inoperable carcinoma of the esophagus, but her history was typical of cardiospasm with inversion of the color fields and one treatment with a hydrostatic dilatation relieved her of all symptoms. A follow up on this case: She died from pneumonia two years later but in the interim had had no recurrence of her dysphagia.

I purposely have not gone extensively into the etiology or treatment of cardiospasm but merely wish to show that an old symptom applied to a definite clinical entity may be of some real help in establishing the differential diagnosis of an extremely interesting disease but as yet there is no satisfactory explanation as to its etiology.

STATE HEALTH COMMISSIONER'S PAGE

 Henry Albert, M. D. 

PREVALENCE OF COMMUNICABLE DISEASES

During the month ending November 15th, there has been a marked increase in the number of communicable diseases in the state. A part of this is seasonal and is therefore to be expected. A large part, however, is due to the fact that we do not have adequate machinery—either state or local—to properly cope with many health problems in spite of the fact that effective methods of procedure are well known. Iowa has the most inadequately supported and quite naturally ineffectually conducted State Department of Health of any state in the Union.

The more important communicable diseases of the past month have been scarlet fever, diphtheria, small-pox, chicken-pox, poliomyelitis, typhoid fever and undulant fever.

SCARLET FEVER

Scarlet fever is widespread. It is especially prevalent in Des Moines, Waterloo, Sioux City, Ottumwa and Burlington. Fortunately it is of a very mild type. This has been true of the scarlet fever of the past few years - the country over. Scarlet fever (streptococcic) antitoxin is very effective in treatment, although many—probably one-half—of the cases are so mild that they do not need it. The antitoxin is not recommended as a prophylactic. The immunity produced by the antitoxin lasts only from about ten days to a few weeks.

For active protective immunization, the anti-scarlet fever streptococcus toxin is used. We prefer the Dick preparation. The recinoleated material, if properly prepared is also satisfactory—but has not been shown to have any advantages over the straight toxin and some of the material put out has been found to have had too much of the toxin neutralized by the soap.

At least three doses of either preparation given at intervals of a week should be given. The resulting immunity does not appear to be of as long duration as occurs in diphtheria. The Iowa Board of Health does not accordingly recommend

its general use as it does diphtheria toxin-antitoxin. It appears advisable to use it in case of rather immediate exposure—as in a family, school room, etc.

DIPHTHERIA

The diphtheria of the past year has been of a more virulent type than usual. Two cases of a hemorrhagic type, occurred at Nevada (Iowa) several months ago. Both were fatal—in spite of efficient medical treatment. Neither of these had been protected by toxin-antitoxin—as about 90 per cent of the children of that community had been. There was no case in the protected group. In Waterloo, there have occurred, during the past six weeks, eighteen cases of diphtheria, four of whom died.

No one need hesitate to use toxin-antitoxin for fear of inducing, in the patient, a condition of hypersensitiveness, with possible serious effects in case of subsequent use of serum. The only hypersensitiveness that is induced is one limited to the skin—and that only in a few cases.

The resulting erythema and urticaria with attendant itching may be unpleasant but is never serious. Besides these annoying symptoms can usually be promptly overcome by hypodermic injections of one-fourth to one c.c. of epinephrine (adrenaline) hydrochloride (1-1000).

In some places non-medical organizations have taken the leadership in having campaigns conducted to eradicate diphtheria by toxin-antitoxin immunization.

We are sure that the interests of both the medical profession and the people are best served by having leadership in public health matters retained by the physicians. There is no fundamental conflict between the interests of the public and those of the medical profession.

In some places the zeal of certain members of the profession has been so great, that they have volunteered to administer the toxin-antitoxin free if the material is supplied by the public. We believe that such is a mistake and always advise

against it, when such is brought to our attention. The administration of remedies for prevention represents "practice of medicine" as well as does the cure of disease and in the long run the interests of both the profession and the public are best served if a reasonable charge is made.

Health officials in order to start a campaign, sometimes arrange for the free treatment of the first one hundred or so, who apply. The State Department of Health will supply, at state expense, the toxin-antitoxin for immunizing one hundred children of a school, provided practically all (85 per cent to 90 per cent) of the children are "signed up", by request of parents, for the immunization.

School authorities and Parent-Teacher Associations often arrange for conducting the campaign through the schools.

Always however, the medical society should be consulted as to plans and arrangements. The profession will do well to take such steps in guiding lay organizations to assure that the plan of procedure is sound and satisfactory.

Most of last's months cases of diphtheria were reported from Waterloo, Des Moines, Clinton county and Jasper county.

SMALL-POX AND CHICKEN-POX

Both of these diseases are very prevalent. Small-pox is being reported chiefly from Webster, Wright and Clark counties: Chicken-pox chiefly from Blackhawk, Dallas, Woodbury, Dubuque, Webster and Montgomery counties.

Our small-pox, as our scarlet fever, is of a very mild type. We have little doubt but that many cases of small-pox have been reported as chicken-pox. From a public health point of view, a case in doubt should always be regarded as small-pox. For the protection of your clients, it is well to advise that they have their children vaccinated or revaccinated if five years have elapsed after the previous vaccination wherever small-pox or what might be small-pox, appears in the community. It is well for every child on attaining the age of one year to be vaccinated—even if there is no small-pox in the vicinity. You expect a lawyer retained by you, to inform you if he knows of something that may result in a serious situation but which may now be readily prevented. Why should not your families expect you to let them know that when a child has attained the age of a year, he should be protected by vaccination, from a possible serious disease.

PLAN FIRST INTERNATIONAL CONGRESS OF MENTAL HYGIENE

Plans for the First International Congress on Mental Hygiene to be held at Washington, D. C., in May, 1930, were adopted at the nineteenth annual meeting of the National Committee for Mental Hygiene which was held November 8th at the Hotel Pennsylvania, New York City. Mr. Clifford W. Beers, secretary of the National Committee and founder of the mental hygiene movement, announced that funds sufficient to guarantee the basic expenses of the Congress have been made available through the American Foundation for Mental Hygiene, a corporation recently organized for the support of national and local committees, institutions and agencies engaged in work for the prevention and control of mental and nervous diseases and the promotion of mental health in all parts of the world.

Discussing the plans and purposes of the First International Congress, Dr. Frankwood E. Williams, medical director of the (American) National Committee for Mental Hygiene, said: "Problems in mental hygiene, or human behavior—whether they concern our loves and hates, our likes and dislikes, our prejudices or our enthusiasms, our services, or unwillingness to serve, or whether they concern matters of larger social failure in the form of delinquency, dependency, inadequacy, or nervous and mental disease or defect—are not peculiar to any

one country. They are common to the life of man everywhere. Men and women, of many professions, in clinic and laboratory throughout the world are engaged in studying these problems. Their success or failure is a matter of importance.

"Much new knowledge of a fundamental sort and much experience in social procedure has been gained. We need to pool this knowledge; to equalize its distribution, that time and energy may not be expended in repetition of research or repetition of error in social planning; to reach if possible a consensus of opinion on certain fundamental matters; to learn where knowledge is yet too incomplete to make possible such agreement; to search out the next steps in the approach to a clearer understanding of the forces which go to make up 'human nature' and to determine human relationships. An International Congress would contribute much to these ends."

NORMANDALE SANITARIUM OPENS IN MADISON

Dr. W. F. Lorenz of Madison, Wisconsin, associating with him Drs. W. J. Bleckwenn and H. H. Reese, announces the opening of Normandale, "an entirely new special hospital and sanitarium for neuro-psychiatric cases". The hospital is located at Madison, and Dr. Lorenz is inviting the attention of Iowa physicians through a formal announcement made elsewhere in this issue of the Journal.

The Journal of the Iowa State Medical Society

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Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVIII December, 1928 No. 12

THYROID DISEASE

While Iowa is, geographically at least, located in the so-called "goiter region" of the United States, the profession as a whole has not given the question of endemic goiter much attention. There are no statistics available on the prevalence of goiter among the school children of this state, and there has been no campaign for the prevention of adolescent goiter through the routine administration of iodine, whether in the form of iodized salt or of some preparation of organic iodine. Since evidence is not lacking that the indiscriminate, unsupervised administration of iodine is not always harmless, but may play a part in the development of toxic symptoms or hyperthyroidism, the conservative stand of a large part of the profession in regard to indiscriminate iodine therapy is not to be condemned until further scientific study has demonstrated that the advantages outweigh its danger or, to better purpose, the public has been educated to a point where careful supervision has replaced indiscriminate dosing, and possible tragedies can thus be obviated.

As has been pointed out, no statistics in regard to the general prevalence of goiter, or of the relative frequency of the various types, or as Hertzer would have us believe, of the various stages of goiter are available for this state. The statistics available from the practice of any one surgeon or any single group of surgeons are always unreliable since the element of chance here plays a possible role, and makes any conclusions based

upon them subject to possible error. Such statistics are, however, not wanting in interest or in value, so long as this possibility of error is borne in mind, and some statistics available from such a source give food for thought. They disclose that during the past year there has been a relative decrease in the number of cases of simple goiter seen as compared with those seen five years ago, a decrease of some 35 per cent, while a comparison of the cases of toxic goiter seen during the same periods shows an increase of almost 400 per cent. Assuming that such a marked change in the ratio of simple to toxic goiter must be due to something more than mere chance, the interpretation of its significance is still difficult and subject to error. While the statistical material available is too small to permit of any sweeping conclusion that the number of simple goiters is decreasing in Iowa, it at least does not suggest that there is any alarming increase in the incidence of such goiters. The remarkable increase in the number of toxic goiters is capable of various interpretations. In a large percentage of these patients, there is a history of goiter, silent in so far as any symptoms recognized by the patient is concerned, of many years standing; then for some weeks, months or even a few years, there have been storm signals of increasing intensity. These symptoms have often developed following some acute infection, perhaps influenza, tonsillitis, or the like; or they may have first been noted following a period of unusual stress, the death of a loved one, some great fright or strain. So much has been, and is being said of the unnatural wear and tear of modern life, that we might attribute this increase in toxic goiter to this twentieth century scapegoat, but such a conclusion is not convincing—the increase has not been confined to any one social class, and Iowa is pre-eminently a section of rural communities and small towns. The assumption that there has been any marked increase in the nervous tempo of the life in these communities during the past five years is scarcely tenable. Nor have these years been marked by any unusual epidemic such as made the year 1918 memorable.

A much simpler explanation seems to be the logical one. Because of the chronicity of the disease, the gradual development of the toxic symptoms in the presence of a goiter of so many years standing that familiarity has bred contempt, the toxic goiter has been too often overlooked. The patient has been treated for his nervous symptoms, for some heart affection, for tuberculosis or for what not, but only in recent years has his goiter been given some measure of the attention it merits. The remarkable increase in the num-

ber of patients seeking treatment for toxic goiter is accordingly not to be considered as indicative of a corresponding increase in the actual incidence of this disease, and so of alarming import. Quite on the contrary, it is a promising criterion of progress in the practice of medicine, indicating not an increase in the actual number of goiter patients, but an increase in the percentage of recognized cases, with a resulting increase in the number of patients coming under treatment. We may hope for some decrease in the number of goiter patients through the more general and more selective preventive treatment of adolescent goiter, but until we have some more definite information on the actual prevalence of adolescent goiter and its significance, the constructive results of such treatment can be determined only in the future. The patient with a toxic goiter is a problem of today if he is to continue to live a useful life tomorrow, and the increase in the number of patients seeking treatment suggests that at last we are coming to accord him some measure of the attention his condition demands. Our vital statistics give no clue to the toll taken by the neglected thyroid—its victims have been classed as dying of nephritis or, more frequently, of heart

disease—but the morbidity and the mortality are, never-the-less, insistent proof that the subject is one which demands thoughtful consideration.

Every patient with a goiter should be under medical observation: the patient with an adolescent goiter requires medical control of the chosen form of iodine therapy; every adenoma of the thyroid is a potential source of trouble and should be closely watched for the development of toxic symptoms; the patient in whom such toxic symptoms have already developed is in need of constant medical supervision if he is to retain or regain a fair measure of usefulness. In the treatment of these patients, physician and surgeon must for the most part each bear his measure of responsibility—the physician in the careful preparation of the patient for operation and in tiding him over this crisis, the surgeon in making possible an eventual recovery. Finally, the patient as well as his physician must be brought to a recognition of the fact that, for a matter of months at least, and in advanced cases during the remainder of his lifetime, recovery following operation is only a relative term—he must learn to live within his impaired physical resources.

Dedication of the New General Hospital at Iowa City

On the 15th, 16th and 17th of November, hundreds of the alumni of the college of medicine and doctors of the state and nation, joined with the faculty, with the representatives of forty class A medical colleges, of national medical organizations and of the State Medical Society, in the formal opening and dedication of the new general hospital at the State University of Iowa.

The visitor arriving at Iowa City on Thursday morning, registered at the administration offices in the medical laboratory. Here he received his guest badge and program, and if he desired could get tickets for the luncheon and dinners. Leaving the registration room, he was met by a medical student who organized a small group for inspection. A guide was assigned to each group and they were escorted through all the medical buildings. The staff members were found in their offices to welcome the guests. Those arriving on later days found similar groups ready to serve them.

Following the forenoon spent in inspecting the buildings, the guests were welcomed at the luncheon in the Memorial Union.

Thursday afternoon was spent in scientific sessions. In the medical amphitheatre an in-

structive address was given by Dr. A. N. Richards of the University of Pennsylvania. His subject was "Studies of the Mode of Elimination of Certain Dyes by the Kidneys". Dr. Richards has perfected a technique by means of which the action of the glomeruli and tubules of the kidney in the living frog can be observed. He is able to withdraw the fluid from within the capsule of Bowman and can contaminate this fluid and observe the effects. He has been able by certain changes to produce edema. It was a very instructive demonstration of the function of the kidney.

Following Dr. Richards, a medical diagnostic clinic was given by Dr. Campbell P. Howard, of McGill University, Montreal. Dr. Howard, formerly head of the department, received a very enthusiastic reception from the visitors. He demonstrated four cases.

In the surgical amphitheatre, a paper was read by Dr. Leathers of Vanderbilt University, on "Preventive Medicine and Public Health in the Medical Curriculum". He deplored the haphazard method of handling this subject in the medical colleges and showed how essential well trained men were in this field and the necessity

of beginning this training with the undergraduate. Dr. Leathers is a pioneer in this field.

Following Dr. Leathers a diagnostic surgical clinic was conducted by Dr. Dean Lewis of Johns Hopkins in that clean-cut method so characteristic of Dr. Lewis.

The evening was spent at the alumni dinner, at which Dr. Fred Moore of Des Moines, president of the Alumni Association of the College of Medicine, presided. Following the dinner Dr. William Mayo addressed the group on "Looking Backward and Forward in Medical Education".

Dr. Mayo stressed the importance of adequate clinical instruction in the final years of a satisfactory medical course, and advocated suitable changes in the pre-medical and medical curricula to the end that the average age of graduates in medicine be lowered. His audience was somewhat startled by his advocacy of year round instruction not only in medical schools but in high schools and colleges. This thought was forcefully stated by Dr. Mayo in his characteristically terse manner: "Why young people at the strongest time of their lives physically and mentally should have a vacation of three months, when the world is on the twelve-month working basis, I am unable to see."*

Friday morning in the surgical amphitheatre, Dr. Frank C. Mann of the Mayo Foundation read a paper on "Physiology of Hepatic Insufficiency".

Dr. Mann, whose experiments on liver removal in animals have greatly clarified our understanding of the physiology of this organ, discussed various function tests of hepatic insufficiency in the clinical and experimental condition. He pointed out the difficulty of producing an experimental insufficiency in animals that would exhibit a syndrome comparable to clinical hepatic disorders and described his most successful experiments along this line.

This was followed by a surgical diagnostic clinic by Dr. Charles Rowan, formerly head of the department of surgery. Dr. Rowan received an ovation from the group, and presented cases of abdominal tumors with the clean-cut differential diagnosis so typical of Dr. Rowan in his surgical teaching.

In the medical amphitheatre a lecture was given by Dr. H. L. Kretschmer of Rush Medical College, on "The Relation of Urology to General Diagnosis". Dr. Kretschmer clearly demonstrated, both by his discussion and by slides, how the well-trained urologist can be of assistance to

other departments in differential diagnosis. He demonstrated his point by slides and anomalies.

Dr. Herrick of Chicago University followed with a medical diagnostic clinic.

Friday afternoon was spent at a special convocation in the Memorial Union Building. The program consisted of a brief sketch of the history of the College of Medicine by President Jessup; a salutation by Dean Houghton in which he stressed the relation of the college to the state as that of service and not commercial competition with the doctors of the state; and formal commitment of the building by President Baker of the State Board of Education, with a response by Governor Hammill.

The main speaker of the day, President R. L. Wilbur, was unable to be present because of serious illness of his wife. His paper was read by Dean Houghton. Dr. Wilbur is past president of the A. M. A.

Some of the more outstanding of the Stanford president's thoughts are best recounted in his own words:

"Civilization is beginning to sense that its future lies with the child and not with the machinery of science. Our durability in a biological sense depends primarily upon our attitude toward childhood", Dr. Wilbur declared.

"Society has definitely concerned itself with the home and protection of the family. Society protects the future of the child by throwing around it the arm of the scientific physician. Until science came to his aid, the physician was forced to work blindfolded against countless unknown enemies."

In speaking of the teaching of medicine, Dr. Wilbur said, "Uniformity in handling the faculty or training all the physicians would be a calamity. Medicine is so many-sided that it can profit having in it men trained in many fields. Our greatest problem now is to develop a proper philosophy and a social understanding among those who are to practice medicine".

The Friday program closed with a dinner at the Memorial Union followed by a dance.

Saturday morning consisted of scientific sessions; a paper by Dr. G. H. Whipple of Rochester University, Rochester, New York on "Blood Regeneration in Anemia"; a diagnostic clinic in Pediatrics by Dr. Joseph Brennemann of Chicago; a diagnostic clinic in Obstetrics and Gynecology by Dr. J. O. Polak of Long Island College Hospital and an address by Mr. George E. Vincent of the Rockefeller Foundation.

As a layman, Mr. Vincent lauded the broad-minded attitude of the medical profession and

*We hope to present to our readers the full text of this address as well as other papers from this meeting in an early issue of the Journal—Editor.

particularly modern medical education in forwarding all movements toward better health by prevention and commended the fortitude and perseverance shown by medical men in the furtherance of these movements in the face of distrust, skepticism, hardship and frank opposition.

He stressed the hardships of modern medical education pointing to the fact that the cost and long preparation necessary now in medical training, the necessity of keeping constantly alive to the developments in the field, the capital needed, the tendency toward specialization, the demand for medical organization, the public health work, the introduction of health centers, higher standards of nursing, the multiplication of healing cults, and a growing public cynicism were all factors of discouragement to the student entering upon a medical course.

The active cooperation of physicians with other organizations attempting public health work was urged by Mr. Vincent upon the belief that only through such cooperation could the greatest public service be accomplished.

ENFORCEMENT OF MEDICAL PRACTICE ACT

State Department of Health and Board of Medical Examiners Need Support of the Profession

The fundamental basis on which the treatment of the sick is conducted and public health work is being done is on a lower basis in Iowa than it is in any other state in the Union.

You may be surprised to learn that the Iowa State Department of Health is relatively the most inadequately supported department of its kind in this country. Your State Department of Health receives for health work, a smaller per capita appropriation than does the same department of every other state in the Union. According to figures prepared by the International Health Board (see accompanying chart), the Iowa Department receives for health work, an annual per capita appropriation of only two and one-half cents, whereas, the average for the State Health Departments of the country is nearly nine cents. The annual per capita appropriation for the work of licensing physicians and carrying out the "medical practice act" is only one-fifth of one cent—also the lowest, we believe, of any state in the Union.

Now what are the remedies for this unfortunate situation. There are many things that should be done. I have space to mention at this time only one.

Law Enforcement: The law makes provision for a penalty in case of nonobservance on the part of individuals, organizations or communities, of the laws pertaining to the numerous activities over which the State Department of Health has jurisdiction. The Department has, however, not been provided with the means of securing proper evidence nor of securing enforcement of the law even when the evidence is secured.

This pertains especially to the enforcement of the law pertaining to the "Practice of certain professions affecting the public health".

The present law places the machinery of law enforcement in the office of the attorney general. The attorney general informs us, however, that he does not have the necessary assistance to secure the proper evidence in case complaint is made and he will not, of course, start action without proper evidence. Those who complain usually have difficulty in securing evidence in a form satisfactory to the attorney general. Furthermore, they claim—and very properly so—that it is the business of the state to secure such evidence. Even if evidence in proper form is secured, the attorney general informs us that he does not have sufficient assistance to prosecute all of the cases for which evidence has been presented. It is a rather strange thing that the state will make provision for the licensing of professional people; insist on certain qualifications and spend considerable state money as it does in some of these professions, and then after licensing them, does not make provision for the reasonable enforcement of the law, which aims not only to protect the members of the profession from unfair competition, but chiefly to protect the people from incompetent and illegitimate practitioners, many of whom are pure charlatans, preying on the public.

The members of the several professions pay a certain sum for their license and a certain annual renewal fee to keep their license in force. These are obviously intended to be used for the administration of the law pertaining to these professions. They are not, we believe, intended to be a source of revenue. Nevertheless, for the year ending June 30, 1928, the receipts from examination and renewal of licenses from physicians amounted to \$8,228, whereas, the expenditures in the behalf of the administration of the Medical Practice Act was only \$4,643.47.

It will thus be seen that there was turned into the state treasury as unexpended receipts the sum of \$3,584.53—which sum could, with great benefit to the people of the state, have been used for

STATE DEPARTMENT OF HEALTH
STATE LEGISLATIVE BUDGET IN
RELATION TO INCOME

Per Capita Basis

State	1925 Population	1 9 2 5		1926 Per Cap. Income (2)	Scale for per capita State Leg. Budget
		Budget from State Legis- lature (1)	Per Cap. State Budget		Scale for per capita Income 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300
Del.	233,653	72,000	.308	797.	
Fla.	1,079,630	269,513	.249	497.	
Md.	1,529,131	351,394	.229	617.	
N.C.	2,740,853	429,822	.157	336.	
Mass.	4,102,616	635,467	.154	1067.	
R. I.	636,227	97,200	.152	1066.	
Pa.	9,263,317	1,371,703	.148	834.	
Me.	781,214	115,000	.147	704.	
La.	1,871,689	238,651	.127	436.	
Conn.	1,517,561	188,500	.124	917.	
N.Y.	11,040,137	1,286,530	.116	1250.	
Vt.	352,428	40,000	.113	651.	
Mich.	4,110,422	418,971	.101	715.	
Va.	2,436,697	228,375	.093	414.	
Ohio	6,270,434	573,713	.091	708.	
Okla.	2,219,423	198,143	.089	420.	
N.J.	3,474,570	297,189	.085	946.	
S.C.	1,770,424	150,039	.084	211.	
Ala.	2,456,364	205,000	.083	300.	
Ill.	6,921,338	569,443	.082	889.	
N. Mex.	377,380	31,238	.082	452.	
N.H.	449,533	36,638	.081	769.	
S.D.	663,677	54,060	.081	279.	
Wis.	2,785,657	226,852	.081	531.	
Miss.	1,790,618	124,800	.069	252.	
Ariz.	401,022	27,405	.068	665.	
W. Va.	1,588,641	108,083	.068	625.	
Minn.	2,547,515	173,206	.067	586.	
Cal.	3,967,271	264,075	.066	1255.	
Idaho	486,596	32,322	.066	549.	
Mont.	637,809	42,700	.066	526.	
Ky.	2,481,890	158,694	.063	401.	
Utah	488,566	29,730	.060	577.	
Ind.	3,048,590	176,750	.057	516.	
Nev.	77,407	4,250	.054	861.	
Tenn.	2,416,735	129,212	.053	361.	
Colo.	1,012,039	51,190	.050	772.	
Ore.	840,369	42,500	.050	756.	
Wyo.	219,352	10,600	.048	876.	
Ark.	1,843,744	85,000	.046	275.	
Kans.	1,809,577	80,013	.044	511.	
Mo.	3,461,085	129,797	.037	550.	
Ga.	3,043,492	96,431	.031	279.	
Texas	5,058,088	159,468	.031	518.	
Wash.	1,467,161	45,000	.030	852.	
N.D.	682,832	20,075	.029	366.	
Neb.	1,350,022	34,000	.025	491.	
Iowa	2,496,331	61,410	.024	539.	
Total	112,301,127	10,172,152	.090		

(1) Based on figures exclusive of T.B.Sanitoria funds

(2) Data from "THE NATIONAL MARKET", courtesy of the Crowell Publishing Company, N.Y.

Per capita State Appropriation (in cents) Per capita income (in dollars)

better administration—more especially law enforcement of the Medical Practice Act.

Law enforcement as it pertains to the Medical Practice Act in New York and California as indicated in the following two letters is directly under the licensing board. The Iowa law resembles the New York law in that the ultimate enforcement is done through the attorney general's office.

October 19, 1928.

Dr. Henry Albert, Commissioner,
Department of Health,
Des Moines, Iowa.
My Dear Dr. Albert:

In reply to your inquiry of October 11th, I beg to state that investigations of the Medical Practice Act are made by inspectors working under me, as Secretary of the State Board of Medical Examiners.

We employ six inspectors for the enforcement of the Medical Practice Act. We have three physicians, a trained nurse and two non-medical inspectors and find that this combination works very well.

Two deputy attorneys general are appointed to prosecute violations of the act, under my direction. These individuals have their legal status by virtue of being deputy attorneys general, but they are paid by this Department and their work is limited to the enforcement of the Act.

In other words, the entire matter, from a practical point of view, is handled by the State Education Department, but in order to give our counselors proper authority to engage in criminal prosecutions, they are named as deputy attorneys general by the Attorney General.

Trusting this may be of service to you, I am,

Very truly yours,

Harold Rypins, M.D.,
New York State Board of Medical Examiners.

Sacramento, Calif.,
October 25, 1928.

Dear Doctor Albert:

The California Board employs two attorneys, one in San Francisco, the other in Los Angeles. These attorneys handle all hearings before our board, render legal opinions, conduct cases of revocation that have appealed, etc.

We also employ three investigators, two in Southern California, and one in Northern California, whose duties are to make investigations and file charges of violation of the Medical Practice Act, prosecution then being conducted by local district attorneys.

The attorney general does not function in any way so far as administration of the Medical Practice Act is concerned.

Very truly yours,

C. B. Pinkham, M.D.,
Secretary-Treasurer.

NOTE: In New York state, there are 17,671 physicians. Although the number of physicians registered in Iowa is only 3,236 the total number of persons licensed by the department is 22,261 or 4,590 more than are covered by the New York Medical Practice Act. Iowa has four state barber inspectors and one cosmetology inspector. There are none for the medical or the other professions.

We hope, at another time to present to the profession further details as to the needs of the State Department of Health as they will be presented to the legislature the coming winter.

I shall however mention that the department is asking for provision for three definite divisions of work. In the order of importance from the standpoint of coming legislation, they are:

1. Child Hygiene.
2. Law Enforcement.
3. Communicable Diseases.

We trust that we may have the united support of the profession in our efforts to strengthen the one and only state department officially charged with the combined and related functions of licensing physicians, conducting public health work and enforcing the medical practice and public health laws.

HENRY ALBERT.

IOWA HEALTH ACTIVITIES NEED COORDINATION*

The executive Council of the Iowa State Medical Society invited representation of those agencies, official, voluntary and professional which are engaged in public health activities in this state, with the purpose of developing some form of cooperation. Our proposal met with sympathy because each agency approached welcomed the thought of reducing friction, developing cooperation and increasing efficiency. This willingness of yours is appreciated, I can assure you, by the physicians of Iowa; for, from the viewpoint of the medical man, this matter of coordination is almost a necessity.

The reasons for this are very simple. The beginning of the difficulty is in the tremendous number of demands made upon physicians for service in these various causes. These requests are so numerous, that they cannot all be answered. One group asks this, and another that, so that there is confusion and duplication of effort. These undertakings are often sporadic in nature and of only passing value because not tied up with allied agencies, public and professional. In this connection, laymen sometimes fail to give proper consideration to the

*Editor's Note: This statement was read by Council Chairman Channing G. Smith before a called meeting of health agencies in Des Moines, Monday, November 19. (See page 480.)

physician's code of ethics. When asked, through thoughtlessness or lack of knowledge, to cooperate in some project which will violate his ethics, refusal must be the doctor's answer.

Thus the doctor, beset by the multitudinous, conflicting, and often improper demands of his friends and neighbors, has in many cases ended up by developing a case of indifference, misunderstanding, or aversion. The Council of the Iowa State Medical Society feels that this confusion in the great field of health activities not only explains the origin of our difficulties but offers the key to the solution.

The doctor, confused by the confusion, turns to his organization to gain his bearings. The various units in the medical organization, especially the state and national associations serve as a bulwark for the ethics of the profession, to set standards, to investigate and weigh new proposals, whether they are theories, remedies, or organizations. Thus the local doctor, not having time from the rigorous duties of his profession to personally investigate, classify, correlate and blend the varying phases of public health work, turns to his organization for advice.

This very fact would seem to promise much in the way of local cooperation of physicians and their communities, if we who represent the state for our respective agencies can work out an understanding and agree on some form of cooperation.

Happily, also, we in Iowa have fewer problems than those in other parts of the country, because there is a marked disposition on the part of lay agencies to cooperate with physicians (as evidenced by your presence here), and because we in this state have not yet the problem of dealing with the great endowed health and welfare agencies that are operating in the east. There are sixty-three national agencies recognized by the United States Public Health Service, many of which have now no interest in Iowa. It is the feeling of many Iowans that we already have enough well manned and properly directed health and welfare agencies to promote and operate our own Iowa work in our own way. Such a conference as this can see to it that we do cover the field, that duplication is avoided, and that if outside paternalistic bureaus are to come into Iowa, they should be able to enter, only with the advice of such a state-wide group as this. Already sixteen of the above-mentioned agencies, have a National Health Council which is anxious to have state councils affiliated. It seems possible that in some future day, there may be a consolidation at the source, and that eventually a group such as this might share the benefits of some of the great endowments. Already in some states, notably Michigan, agencies such as represented here, have united in what are variously called, conferences, councils, or committees, for the purpose of health education through speakers bureaus, newspapers, etc.

To this end, we have invited to meet with us, the proper representatives of those organizations having definite health welfare programs: State Board of

Health, Iowa Tuberculosis Association, State University Medical School, State University Extension Division, Farm Bureau, Parent-Teachers Association, Women's Federation, Red Cross.

There are undoubtedly other organizations that should be included in case we decide to have further conferences of this sort.

For this first conference we had in mind the discussion of the following questions:

1. What is the field of work (in a few words) of each organization represented? What are its main objectives? Its plan of organization? Its activities for the coming year?
2. Is it the opinion of this group that this conference should be called together again or from time to time?
3. What are the questions, problems, and projects that need group consideration?
4. What questions by unanimous consent shall be considered at the next meeting?

MEDICAL CLINICS OF VIENNA

IX Borschke gosse 7

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Vienna, Austria

November 2, 1928.

Dear Doctor Simmons:

Things move slowly on this side of the water, so it happens that I have not been able to arrange my notes in a way satisfactory for publication. An English speaking stenographer seems to be a rare bird in this conservative old city.

It has occurred to me that an interesting and wholesome chapter might be written on the status of our own colleagues doing post-graduate work here. To me their attitude in matters pertaining to the professions and the public is far from ideal. Naturally, I appreciate that the subject is a delicate one. However, I feel that someone sometime ought to touch on it. Possibly you can indicate to me just what kind of material would be most acceptable to the readers of the Journal. At any rate, we will continue our efforts.

Sincerely,

Dr. (Med.) N. Schilling.

(Dr. Schilling of New Hampton, Iowa, kindly agreed to furnish the Journal periodical reports from the Medical Clinics of Vienna during his period of study there. The foregoing letter was written by Dr. Schilling soon after his arrival in Vienna. Other contributions will appear in the columns from Dr. Schilling from month to month.

Dr. N. Boyd Anderson of Des Moines, now visiting the European Clinics, has promised reports for the Journal from time to time.

It is hoped that our readers will volunteer reports of their studies when visiting various clinics, either foreign or domestic, since we feel that all subscribers will be interested in such reports.—Editor.)

Council Message

State Meeting of Deputy Councilors and Secretaries December 13, 1928

The third annual secretarial-councilor conference will be held at the Hotel Fort Des Moines, Des Moines, Thursday, December 13. The morning session which begins at 9:30 in the Oak Room will be devoted to a symposium on coordination of local health activities. Dr. John M. Dodson, Executive Secretary of the American Medical Association, will deliver the address at the noon luncheon and the afternoon session will be devoted to legislative problems.

Every county in the state is to be represented by deputy councilor, secretary, or both; and the object of this all-day meeting is to give them a full opportunity to secure first hand information about these matters which are vital to the medical profession. A free discussion of local problems is to take place and special attention will be given to a practical legislative program.

The purpose is to give these selected representatives all the facts to take back to their various societies. It is the solemn determination of the Council to fully inform every component society and member physician of these problems, to unite on a program, and to secure effective cooperation in carrying it out.

Health Workers Confer with the Council

At the invitation of a specially appointed committee of the Council, representatives of four voluntary or lay organizations and four professional or official agencies engaged in health activities, met with representatives of the State Medical Society at four o'clock Monday, November 19, at the Des Moines Club. The organizations and their representatives uniting in this first State Health Conference were: State Medical Society, Drs. Smith, Gray, Conaway and Mr. Blank; State Board of Health, Drs. Albert and Steelsmith; State University Medical College, Dean H. S. Houghton; State University Extension Division, Dr. E. H. Lauer; Iowa Farm Bureau Federation, Mr. Charles E. Hearst, Mrs. Ellsworth Richardson, Miss Williams; Parent-Teachers Association, Mrs. B. C. Hopkins, Mrs. S. E. Lincoln; Iowa Federation of Women's Clubs, Mrs. Casper Schenk. The Red Cross was represented by a letter from State Chairman Judge Utterback, who was unable to be present. At the beginning of the meeting the purpose, organization, and health activities of each agency were outlined by the president, director, or health committee chairman, and a general discussion followed.

Important results were accomplished because already one or two fields have appeared in which there is avoidable duplication. Definite suggestions were made for topics to be discussed at future conferences. It was the feeling of those present that the various county medical societies should be put in a position to more effectively aid or direct official or voluntary health undertakings. Everyone present expressed great satisfaction over the first meeting and an eagerness to continue such consultations. The council members felt that such cooperation would not only solve but avoid many local difficulties but would also prevent from springing up in Iowa, those highly socialized paternalistic health movements which are one aspect of state medicine.

Your attention is called to the statement (printed on page 478) which was read at the opening of the meeting as an explanation of what the Medical Society desired in coordination in this field.

Channing G. Smith

MEDICAL PROFESSION OF WESTERN HEMISPHERE TO HOLD CONGRESS IN HAVANA

The next congress of the Pan-American Medical Association will be held in Havana, Cuba, from December 29, 1928 to January 3, 1929. The program which is being arranged by the president, Dr. Fred H. Albee of New York City, will be a strong one, and will include four orations, upon the subjects of surgery, medicine, pediatrics, and tropical medicine.

Dr. William J. Mayo will give the Oration on Surgery, and Dr. Lewellys Barker of Johns Hopkins University the Oration on Medicine. Papers will be read in both Spanish and English.

This congress will be representative of the medical profession of the entire Western Hemisphere. Chapters of the Association have been and are being organized in various centers of North America and Central America, as well as in the Antilles, all of which will be represented at the Congress.

One of the recent accomplishments of the Pan-American Medical Association is the establishment of the Pan-American Hospital in New York City for the benefit of the Latin-speaking people.

A large attendance is solicited.

SOCIETIES AID BOVINE TUBERCULOSIS FIGHT

Word has come to the Journal office that at least seven of the component societies took active steps to have their counties vote affirmatively upon bovine tuberculosis eradication. The Madison County Society voted unanimously to support the measure and in addition each member signed a petition addressed to the voters of the county. The Washington County Society took similar action, the president and secretary, Drs. L. F. Frey and H. F. Masson, issuing a statement to the voters. In Johnson county the faculty of the University Medical College made a similar statement through Dean H. S. Houghton. The Jefferson, Ringgold, Taylor and Union County Societies took similar actions.

DES MOINES PHYSICIANS AID INDIGENT SICK

Some fifteen hundred indigent sick were examined and treated monthly by thirty-nine Des Moines physicians who contributed 1115 hours of service to the City Health Center, which is one of the units of the Des Moines Welfare Bureau.

COMMUNITY HOSPITALS PLANNED

The physicians of Madison county are taking the lead in the organization of a community hospital association, which plans to erect early next year a twenty-five bed fully equipped hospital.

Vinton, Iowa, is also engaged in a drive for funds to support the community hospital.

SOCIETY PROCEEDINGS

Boone-Story Societies Hold Meeting

More than fifty members of the combined societies of Boone and Story counties met in Story City, Tuesday, November 13 at the Grand Hotel, where the dinner was followed by a scientific program consisting of a paper by Daniel J. Glomset, M.D., of Des Moines on Clinical Significance of Recent Advances in Cardiology, and one by M. Olson, M.D., of Des Moines on What the Medical Director Expects of the Examiner.

After the dinner, the host, Dr. H. K. Haerem, welcomed Channing G. Smith, chairman of the Council and Vernon D. Blank, the new managing director, who then presented a short program on Medical Economics.

Butler County Society Meeting

Butler County Medical Society met at Allison, Wednesday, November 7th. J. G. Evans, M.D., of New Hartford, presented a paper on Reminiscences and Recollections in which he compared the practice of thirty years ago with that of today and which precipitated discussion upon how the physician can best serve the community in which he lives. Health programs, vaccines, scarlet fever and diphtheria prevention were covered in the discussion. J. A. Rolfs, M.D., of Aplington, addressed the meeting on the subject of The Small Town Physician, and in connection with the discussion of the evening said, "the need is for closer cooperation and more intimate understanding between the doctor and the people that the people might better know and appreciate their physician". The officers elected at the annual meeting were president, Dr. J. A. Rolfs, Aplington; vice-president, Dr. C. C. Smith, Clarksville; secretary-treasurer, Dr. E. C. Kepler, Allison.

(Editor's note: The Journal has written this story from newspaper clippings. At least four newspapers in Butler county carried a report of this meeting, so that the citizens of that county know their physicians are meeting to improve themselves and their practice and to promote health conditions in the community.)

Carroll County Society Meeting

The Carroll County Medical Society met for dinner at the St. Anthony Hospital in Carroll at six-thirty Wednesday, November 7th. Thirty-six were present and Frank Rohner, M.D., of Iowa City, presented a paper on Pernicious Anemia. After the scientific program the doctors and their wives concluded the evening with bridge.

Cerro Gordo and Floyd Societies Combine Meetings

Adopting the policy recommended by President McManus, Cerro Gordo and Floyd County Societies held a joint meeting in Mason City, November 20, with Floyd county furnishing the program. The meeting started with a dinner at the Hanford Hotel,

after which the following program was given: What Can We Expect from the Electrocardiograph, C. W. McQuillen, M.D., Charles City; When Does Hernia Become an Industrial Accident, W. L. Griffen, M.D., Charles City; A Moose Hunt, F. H. Fillenwarth, M.D., Charles City.

Floyd county guests were, Dr. Niemack, president; Dr. Fillenwarth, secretary; Drs. McQuillen, Griffin, Moner, Stober, Klinetop, all of Charles City, and Drs. Yenerick and Kruse from Rockford.

Clayton County Entertains

The Clayton County Medical Society was host to visiting physicians from Fayette and Dubuque counties, Tuesday, October 23, 1928. The following program was presented: Cardiac Pain, C. C. Hall, M.D., Maynard; Urological Problems and the General Practitioner, J. H. Schrup, M.D., Dubuque; Ethics in Medicine and Surgery, R. R. Harris, M.D., Dubuque; Intravenous Medication, J. W. Hudek, M.D., Garnavillo. All papers were well received and well discussed. The officers of the Clayton County Society are: J. A. Cahill, Volga, president; E. B. Hanson, Edgewood, vice-president, and J. W. Hudek, Garnavillo, secretary and treasurer.

Decatur County

The Decatur County Medical Society met Tuesday evening, October 30th, at the office of Dr. B. L. Eiker in Leon. J. S. Coontz, M.D., of Garden Grove and L. E. Sixbury, M.D., of Lamoni, conducted a clinic. The November meeting was held on the evening of Friday, the 23rd, in the public library in Leon.

Fayette County Meets

Monday, November 5, the members of Fayette County Medical Society were guests of the Oelwein City Society at a six-thirty dinner held in the Mealey Hotel in Oelwein. Medical Psychology of the Infant and Child was the subject of a paper by J. B. O'Conner, M.D., Oelwein, which dealt with the co-operation of parents with the doctor in handling the sick child. It elicited much discussion. The second paper was by A. A. Schmidt, M.D., of Postville, on Malignancies Following Thyroid Operations. Orville B. Chandler, M.D., of New Hampton gave a talk illustrated by films, Normal and Diseased Sinus of the Head.

C. C. Hall, Secretary.

Greene County Medical Society Meeting

On November 14 the Greene County Medical Society met at the Hotel Lincoln, Jefferson, at 6:15 for supper. The meeting was well attended by the physicians and their wives. Following the supper the ladies attended the local movie theatre while the medical society proceeded with their program. The scientific papers were preceded by a short business session.

Inasmuch as several inquiries had been made concerning the administration of toxin-antitoxin to

school children and to those of preschool age it was voted by the society that they administer the diphtheria toxin-antitoxin to all children whose parents request it for \$2 per child. This includes the toxin-antitoxin and it is stipulated that this is to be administered in groups and not singly. It was also voted to request the Iowa Tuberculosis Society to hold a Chest Clinic during the month of December.

The scientific program follows: The Psychopathic Patient, W. M. Young, M.D., Jefferson; discussion opened by R. E. Parry, M.D., Scranton. Typhoid Fever—Case Report, Richard Lucke, M.D., Jefferson; discussion opened by F. M. Dean, M.D., Jefferson.

Richard Lucke, Secretary.

Hardin County Annual Meeting

Thursday, November 22, Hardin County Medical Society held their annual meeting at Eldora, Iowa. Following a six o'clock dinner at the Hotel Winchester, A. M. Luell, M.D., of the Mayo Clinic, presented a paper on Glands of Internal Secretion, which was illustrated by slides. There was a good attendance and a most interesting meeting. The following officers were elected: Dr. R. E. Gray, of Eldora, president; Dr. Harold Mangun of Ackley, vice-president; Dr. C. M. Wray, of Iowa Falls, treasurer, and Dr. W. E. Marsh, of Eldora, secretary.

Johnson County Medical Meeting

The November meeting of the Johnson County Medical Society was held at Oakdale, Iowa, Wednesday, November 7, the society members being guests of the Oakdale Sanitarium staff. Over fifty members and guests attended this splendid meeting and the following scientific program was presented: Procedure for the Admittance, Diagnosis and Care of the Patients at Oakdale, H. V. Scarborough, M.D.; Surgical Treatment of Pulmonary Tuberculosis, Ray A. Fox, M.D.; Report of a Case of Carcinoma of the Bronchus, with X-ray Findings, W. M. Spear, M.D.; and C. F. Taylor, M.D., presented a resume of some thirty cases referred to the hospital as tuberculosis, which were found to be non-tuberculosis.

Linn County Medical Society Meets

On November 8, the Linn County Medical Society met at the Montrose Hotel where the following program was presented: The Diagnosis and Medical Management of Gastric and Duodenal Ulcers, Milton M. Portis, M.D., Chicago, and Nutrition of the Child, M. L. Turner, M.D., Des Moines. These were very practical papers and were discussed with much interest. A buffet luncheon was served following the program.

Lyon County Society Endorses State Program

At the Lyon County Medical Society meeting, November 22, all last year's officers were reelected: Dr. E. J. Bild, Doon, president; Dr. G. H. Boetel, Rock Rapids, vice-president; and Dr. E. S. Acilts of

Little Rock, secretary-treasurer. The society acted on the eligibility of all non-members and adopted resolutions endorsing the legislative program of the State Medical Society.

Marshall County Society

Marshall county opened the year's sessions with a meeting on election night, November 6th, which began with a dinner at the Hotel Tallcorn. The scientific program consisted of a paper by Anatole Kolodny, M.D., professor of surgery at the University Medical College, Head Injuries and Their Complications; and presentation of the pathology of a heart case by G. M. Johnson, M.D., Marshalltown, and A. D. Wood, M.D., State Center. Dr. T. U. McManus, president of the State Society, was among the guests of the society and spoke briefly upon activities of the state organization and also congratulated the Marshall County Society upon having obtained 100 per cent membership.

Unusual Meeting of Marshall County Society

Tuesday night November 20th, the Marshall County Medical Society was host at a six-thirty dinner program to the medical officers of the 347th Medical Regiment, which is the Iowa Medical Unit of the U. S. Army, and of which A. C. Conaway, M.D., of Marshalltown is the commanding officer. The speaker of the evening was Col. George A. Skinner, Corps Area Surgeon for the Seventh Corps Area, whose subject was If War Comes.

Muscatine County Society Meets

Tuesday evening, October 23rd, seventy-five physicians, several of them from adjoining counties, met at the Hotel Muscatine for a program presented by William J. Mayo, M.D., and two members of the staff of the Mayo Clinic. Dr. Mayo's subject was, The Cancer Problem. T. B. Magath, M.D., presented a paper upon Actinomycosis; and R. D. Mussey, M.D., spoke upon Emergency Operations During Pregnancy.

Monroe County Medical Society Meeting

Monroe County Society met in Albia, Friday, November 23 at eight o'clock. Dr. C. S. Cornell, secretary of the Marion County Society gave a detailed explanation of the plan adopted by the Marion Society for rendering medical service to the indigent sick of that county.

O'Brien County Society Meeting

Thursday evening, November 15, the O'Brien County Medical Society met in Primghar for a dinner at the Hub Hotel, which was followed by the usual scientific program.

Polk County Society Meeting

The regular monthly meeting of the Polk County Medical Society was held at the Fort Des Moines Hotel, October 31st, at 7:45 p. m.

The following program upon the general topic of pneumonia was presented: Pathology, W. F. Brinkman, M.D.; Medical Management, Wm. E. Sanders, M.D.; Diathermy, Thos. P. Bond, M.D.; Serology, Daniel Glomset, M.D. The discussion was opened by Dr. G. A. Huntoon, and was continued by Drs. Carryer and Glomset. The committee on the proposed Medical Arts building reported the survey of prospects as yet incomplete, and a lively discussion followed the report.

Dinner was served at six o'clock to the eighty-two members present.

Poweshiek and Jasper Counties Have Joint Meeting

Another joint meeting was that of Poweshiek and Jasper counties held November 10 in Grinnell, Iowa. It was reported as being exceptionally inspirational and instructive and the following program was presented: The Problem of Neurasthenia, L. R. Woodward, M.D., Mason City; Treatment of Hypertension, Frank L. Smith, M.D., Newton; Infections of the Forearm, Henry J. Prentiss, M.D., Iowa City; Acute Hepatitis (Yellow Atrophy), P. E. Somers, M.D., Grinnell; Functional Disorders of the Gastrointestinal Tract, E. S. Evans, M.D., Grinnell; Demonstration of X-ray Films, Fred M. Smith, M.D., Iowa City; The Diagnosis of Hyperthyroidism, A. C. Davis, M.D., Rochester, Minnesota.

Dr. E. E. Harris acted as toastmaster at the fried chicken dinner at the County Club in the evening, after which Dr. Henry S. Houghton, dean of the Medical School at Iowa City, spoke on the Relation of the State University Medical School to the Community.

Ringgold County Annual Meeting

The Ringgold County Medical Society, met November 22, for its annual meeting and elected the following officers: President, Dr. S. W. DeLong, Tingley; vice-president, Dr. E. J. Watson, Diagonal; secretary-treasurer, Dr. J. W. Hill, Mount Ayr; delegate, Dr. C. T. Lesan, Mount Ayr; and alternate delegate, Dr. J. W. Hill, Mount Ayr.

Tama Medical Society Meets

The Tama County Medical Society met in Toledo, Wednesday, November 14, at which R. F. French, M.D., Marshalltown, read a paper on Injuries to the Eye, followed by an address on Medical Ethics by District Councilor A. C. Conaway of Marshalltown. The following officers were elected at the business session which closed the program: Dr. C. W. Mapletorpe, Toledo, president; Dr. Frank T. Launder, Garwin, vice-president; Dr. Knight E. Fee, Toledo, secretary, and Dr. A. A. Pace of Toledo, censor.

Taylor County Annual Meeting

Tuesday, November 13th, the Taylor County Medical Society held its annual meeting in the community club rooms in Bedford. J. F. Aldrich, M.D., of Shenandoah presented a paper upon What a Full

Time Health Department Could Mean to a County. It was decided to hold a chest clinic at an early date. Dr. R. B. Reed, Clearfield, was voted into the society, and the following officers were elected: President, Dr. J. W. Beauchamp, Bedford; vice-president, Dr. B. H. Miller, Blockton; secretary and treasurer, Dr. G. W. Rimel, Bedford; delegate, Dr. Rimel; alternate, Dr. R. B. Reed, Clearfield; board of censors, Dr. J. T. Maloy, Bedford, Dr. S. L. Clabaugh, Gravity and Dr. L. T. Reed, Gravity.

Washington County Society Hears Dean Houghton

Monday, October 22nd, the Washington County Medical Society met at the Y. M. C. A. in Washington and after dinner was addressed by Dr. H. S. Houghton, dean of the University Medical College, upon the Relationship of the Medical School to Iowa Physicians and Communities. Dr. W. W. Peters of the American Public Health Association, New York, was also a guest of the society and spoke briefly upon the cooperation of physicians in health activities.

Webster County Society Weekly Meetings

On November 13, 1928, E. M. Kersten, M.D., Fort Dodge, read a paper, Puerperal Infection, before the Webster County Society. Allen C. Starry, M.D., Sioux City, read a paper on Pathology of the Appendix at the next weekly meeting held November 20, 1928. Both meetings were, as usual, well attended and interesting.

Woodbury County October and November Meetings

The Woodbury County Society meeting was held at the Currier Hall, Salix, six-thirty Monday evening, October 29. After dinner the speaker of the evening was introduced, George Newhouse, M.D., Omaha, Nebraska, presenting a paper upon Neurosyphilis.

Monday, November 26, fifty members of the Woodbury County Society sat down to a duck dinner served at the Elk's Club in Sioux City. The Women's Auxiliary of the society was meeting the same evening so that the members remained for bridge, pool and billiards following a short business session. Dr. J. E. Swanson presided at the banquet and called on Dr. William Jepson to introduce Dr. Channing G. Smith, chairman of the Council who was the guest of the society. Dr. Smith spoke briefly upon the necessity of coordinating lay health activities under medical direction. Vernon D. Blank, managing director of the State Society, spoke upon What You Get for the Seven Dollars and a Half. The society voted to accept the invitation of the Women's Auxiliary for a joint meeting in December and then adjourned for the evening entertainment.

Northwest Iowa Medical Society Fall Meeting

The fall meeting of the Northwest Iowa Medical Society was held Wednesday evening, October 31, in the Commercial Club rooms at Sheldon. Dr. G.

E. Vermeer presented an interesting case of serious hand injury, which was followed by a medical economics program. D. C. Steelsmith, M.D., deputy commissioner of the Iowa State Department of Health, had as his subject Medical Economics; Channing G. Smith, M.D., chairman of the Council, spoke upon Public Health Matters and Their Influence on the Physician. Vernon D. Blank, managing director of the State Society, spoke briefly on Service to the Component Societies. An extended discussion followed these papers, during which the speakers answered numerous questions regarding medico-legal problems, legislative matters, and lay health activities in local communities. At the end of the discussion the following resolution was passed by the society: "Be it resolved that the Northwest Iowa Medical Society members assembled at Sheldon, Iowa, October 31, 1928, pledge to support the State Medical Society and the State Department of Health in their efforts to further the health interest and welfare of the inhabitants of the state of Iowa."

The annual election of officers was held with the following results: President, W. B. Brock, M.D., Sheldon; vice-president, Frank P. Winkler, M.D., Sibley; secretary, J. M. Crowley, M.D., Rock Rapids; treasurer, L. L. Corcoran, M.D., Rock Rapids; censor, Frank Reinsch, M.D., Ashton.

Southwestern District Society at Red Oak

The annual meeting of the Southwestern Iowa Medical Society was held at the Masonic Hall at Red Oak the afternoon of November 8th. President, Dr. A. A. Johnson of Council Bluffs, called the session to order at 1:00 p. m. and the following scientific program was presented. Hyperemesis Gravidarum, C. L. Bain, M.D., Corning, Iowa; What a Whole Time Health Department Would Mean to a County, J. F. Aldrich, M.D., Shenandoah, Iowa; Disturbances of the Growth of the Juvenile Bone, K. R. Werndorff, M.D., Council Bluffs, Iowa; Gallbladder Visualization, C. A. Hill, M.D., Council Bluffs, Iowa. Dr. Channing G. Smith, Chairman of the Council, Granger, and Vernon D. Blank, managing director of the society were present and spoke upon the service which the State Society is rendering organized medicine and the physicians of the state. Officers elected for the coming year were president, Dr. W. F. Amdor, Carbon; vice-president, Dr. George Alliband, Elliott; and secretary, Dr. C. L. Bain, Corning. Dr. J. C. Parsons, Creston, was secretary for the past year.

Botna Valley Medical Society at Avoca

The annual meeting of the Botna Valley Medical Society was held in Avoca, Wednesday afternoon, November 14th, in the Commercial Club room. Vernon D. Blank, managing director of State Society, spoke briefly upon service to the component societies, preceding the scientific program which was as follows: Thyroid Disease, C. A. Roeder, M.D., Omaha, Nebraska; An Epidemic of Meningitis, Her-

man Bocken, M.D., Harlan, Iowa; An Anatomical and Clinical Study of Hand Infections, R. Russell Best, M.D., Omaha, Nebraska; and Hypertension, A. D. Dunn, M.D., Omaha, Nebraska. The following officers were elected for the coming year: President, Dr. A. Montgomery, Atlantic; vice-president, Dr. A. H. Pederson, Avoca, and secretary-treasurer, Dr. K. I. Thompson, Oakland. The officers in charge of the day's program were president C. F. Baumeister, Avoca, and secretary R. L. Barnett, Atlantic.

Waterloo Medical Society Meeting

Dr. Henry Albert, Health Commissioner, addressed the Waterloo Medical Society Wednesday evening, November 21st. There were about sixty in attendance and Dr. Albert's discussion of the prevention and control of epidemics of diphtheria and scarlet fever led to numerous expressions of appreciation of Dr. Albert's loyalty to the medical profession in his conduct as health commissioner.

Iowa and Western Illinois Dermatological Association Organized

The Iowa and Western Illinois Dermatological Association was organized at a meeting held in Davenport the afternoon of October 29th. Following the organization meeting the members visited the cottage of the Davenport Visiting Nurses Association to make a study of some unusual cases there and they met for dinner at the Hotel Blackhawk where a round-table discussion was conducted. The following officers were elected: President, Dr. Robert E. Jameson, Davenport; honorary president, Dr. James C. Kessler, professor of dermatology, the University of Iowa; vice-president, Dr. Victor Brown, Sioux City; treasurer, Dr. W. B. Wakefield, Peoria; secretary, Dr. A. T. Leipold, Moline, and chairman of board of censors, Dr. Kurt Jaenicke, Clinton.

CHEST CLINICS HELD

Lee County

The Lee County chest clinic was held at Fort Madison, November 9, at the Sacred Heart Hospital. There was a splendid attendance, and the Sisters of the Hospital served luncheon at noon. The clinic was conducted by Drs. Luginbuhl and Peck of Des Moines.

Adams County

Friday, November 23, Drs. Luginbuhl and Peck of Des Moines conducted a chest clinic in Corning, at which there was 100 per cent attendance of physicians in the county. Excellent clinical material was provided and the clinic was felt to be a great success. It was held under the direction of the county medical society in cooperation with the Iowa Tuberculosis Association.

PERSONAL MENTION

Dr. John F. Smith, who was formerly in Des Moines, has moved from Wesley, Iowa, where he has been the last three years to Chicago, where he will be connected with the Mercy Hospital.

Dr. Robert H. Crawford has resigned his position as assistant medical director of the Central Life Assurance Society and has moved from Des Moines to Algona, where he is associated with Dr. M. J. Kenefick in the Algona Hospital, succeeding Dr. E. C. Hartman.

Dr. E. C. Hartman, for fifteen years a practicing physician in Algona, has gone to Janesville, Wisconsin, where he will specialize in children's diseases on the staff of the Pember-Nezum Clinic.

Dr. Verner T. Lindsay, an Iowan formerly located at Menlo, has returned from Fort Collins, Colorado, where he has practiced for the past few years, to Glidden, Iowa, where he is succeeding Dr. J. A. Downs.

The son of Dr. A. E. Archer of Fort Dodge, John C., who is a student at Northwestern University, was very seriously wounded by shots fired from the car of a Chicago gangster. It seems certain now that the young man will live and the father is confident that he will not be a victim of the paralysis, with which he at one time was threatened.

Dr. O. P. Jameson of Leon, formerly of Weldon, has been seriously ill in one of the Des Moines hospitals.

The following men have recently completed their medical training and located in Waterloo: Dr. B. C. Boston, Dr. J. L. Kestel, Dr. L. H. Ladage, Dr. G. B. Lichty, Dr. Eugene Smith.

Dr. J. T. Hanna of Burlington presented a paper, Cancer of the Stomach, before the Surgeon's Association of the Rock Island lines.

Dr. P. W. Van Meter, secretary of the Calhoun County and Twin Lake Societies, has been in a Fort Dodge hospital recovering from an automobile accident in which he suffered a fracture of the sixth cervical vertebra. The accident occurred in Rockwell City when he was on his way to the high school with his daughter who suffered a fractured leg when another car collided with theirs.

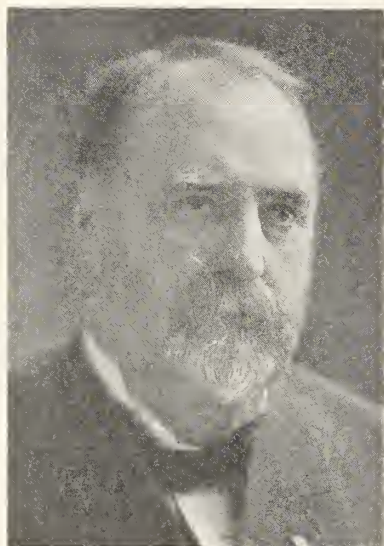
Fraternal Congress Holds Health Session

The Iowa Fraternal Congress began its twentieth annual meeting in Des Moines, November 19th, with a Health Session, which was opened by an address on Preventive Medicine and Its Relation to the Public Health, by Walter L. Bierring, M.D., of Des Moines. C. E. Harris, M.D., formerly of Grinnell, Iowa, now chief of the medical staff of the Modern Woodmen Sanitarium, Colorado Springs, spoke upon The Mutual Interest of the Insurance Man and the Physician in Health Conservation.

OBITUARY

Dr. Lewis Schooler, age eighty, a resident of Des Moines for forty-four years and a former president of the Iowa State Medical Society, died in Mercy Hospital, Des Moines, on October 10, 1928. His death followed an illness of three months preceded by a period of failing health.

He was born on March 17, 1848, at Columbus, Indiana. During the Civil War, then sixteen years of age, he served as a member of Company A, 145 In-



DR. LEWIS SCHOOLER

diana Infantry, and took part in several major engagements. In the Spanish American War he was chief surgeon of the 2d division of the 3d army corps.

He was a graduate in medicine from the Kentucky School of Medicine, and held the honorary degree of Doctor of Laws from Drake University.

Of a particularly studious turn of mind, Dr. Schooler soon after entering upon medical practice, became recognized as a leader in the profession. From 1887 to 1903 he was honored by being awarded the deanship of Drake University School of Medicine. In 1894 he was elected president of the Iowa State Medical Society, an honor rightfully earned, as was demonstrated by the competency of his management of state affairs while in office.

He was a member of the American Medical Association, the Iowa State Medical Society and the Western Surgeons and Gynecological Associations.

Dr. F. C. Hull, long a member of the Warren County and Iowa State Medical Societies, died of heart disease in his home at Carlisle the morning of November 13th, at the age of seventy-four. Dr. Hull who was in active practice at the time of his death is survived by his wife and four children: Mrs. H. B. Morgan, Baxter; Wayne Hull, Lorimor; Jay Hull and Herbert Hull, Carlisle.

MARRIAGES

Wednesday, November 7th, Dr. F. E. Sampson and Miss Minnie G. Dunn, both of Creston were united in marriage by the Rev. Mr. Mitchell of the Congregational Church at the parsonage in Creston. Mrs. Sampson has been superintendent of the Creston Community Hospital. They left immediately for California where they will spend the winter.

BOOK REVIEWS

SYPHILIS—ACQUIRED AND HEREDOSYPHILIS

By Charles C. Dennie, B.S., M.D., Assistant Professor of Dermatology and Syphilology, University of Kansas School of Medicine; Chief of Heredosyphilitic Clinic, Children's Mercy Hospital, Etc.; Member of the American Dermatological Association. Harper's Medical Monographs. Harper & Brothers, Publishers, New York and London. Fifteen Illustrations. Price \$2.50.

This volume is the first of a series of medical monographs to be published by Harper & Brothers. The avowed purpose of these monographs is to make available to the general practitioner up-to-the-minute information upon the subject discussed, in a short but authoritative treatise. No effort will be made to review experimental work or to cite references in these monographs, since the selection of eminent authorities for their compilation will guarantee the thoughtful selection of the material incorporated in their composition. The presentation of the subject will be purely clinical and reflect the practices and observations of the various authors. Dr. Ralph G. Stillman, the managing editor, together with ten outstanding physicians, representing as many outstanding medical centers, constitute an editorial board whose duties are to select subjects and authors for additions to this series. This monographic presentation of clinical observations in book form is essentially new in this country, but its widespread popularity on the European continent bespeaks its usefulness.

This volume on syphilis by Dr. Dennie has in a very generous measure attained the avowed ideals of the editors. One is impressed by the thoroughness of the discussion and its brevity. It does not attempt to cover syphilis in all its vagaries, but no single volume can be expected to do this. One finds, however, that the essential points in establishing a diagnosis are carefully reviewed in a clear-cut, differential fashion, while modern treatments are carefully outlined with tabulated indications and contra-indications for their use.

To the busy practitioner of medicine desiring a complete review of the subject of syphilis and an opportunity of observing the advances made in the diagnosis and treatment of this disease, this book is heartily recommended.

MODERN MEDICINE, ITS THEORY AND PRACTICE, IN ORIGINAL CONTRIBUTIONS

By American and Foreign Authors, Edited by Sir William Osler, Bart., M.D., F.R.S. Third Edition, Thoroughly Revised. Re-Edited by Thomas McRae, M.D., Assisted by Elmer H. Funk, M.D. Volume VI, Diseases of the Nervous System, Diseases and Abnormalities of the Mind. Illustrated. Lea & Febiger, Philadelphia, 1928. Price of this Book, \$9.00.

The name of Osler even in these changing days will for generations carry the weight of authority in medicine. Death has removed him from active participation, but his spirit of progress and his philosophy of medicine will pass into the future.

This great work on the practice of medicine represented the views of Sir William Osler and his associates. The demand for a new edition interested Sir William, but his untimely death prevented his personal supervision, beyond the plan which he and his close associate Dr. Thomas McRae had so ably formulated and Dr. McRae carried out with the assistance of Dr. Elmer H. Funk.

The first five volumes of this work have been reviewed in this Journal. It will be observed that each volume is complete in itself and may be purchased separately. This volume of 964 pages includes twenty-four chapters devoted to diseases of the nervous system, each chapter prepared by well-known specialists in the particular field of neurological work. For example, Dr. Harvey Cushing prepares the chapter on Intracranial Tumors, and the chapter on Hydrocephalus.

Part two, on Diseases and the Abnormalities of the Mind is prepared by Dr. Edward A. Strecker.

The introductory chapter to Diseases of the Nervous System is by Lewellys F. Barker, the eloquent medical writer, who not only inspires an interest in the subject, but brings a real pleasure to the reader.

D. S. F.

THE GLANDS REGULATING PERSONALITY

A Study of the Glands of Internal Secretion in Relation to the Types of Human Nature. By Louis Berman, M.D., Associate in Biological Chemistry, Columbia University. Second Edition Revised. The Macmillan Company, New York. MCMXXVIII. All Rights Reserved.

Perhaps the most recent and most fascinating channel of medical research is that dealing with the glands of internal secretion. Most observers feel that the sum of our knowledge concerning the roles played by these glands, either independently or in their inter-relationships, is so meager that considerable caution must be exercised in the statement of their normal or pathological physiology.

Dr. Berman apparently does not share this caution, since this volume in every chapter presents as

facts statements which, to the ordinary observer in this field of science, appear entirely void of scientific proof. It would appear that having established a general working hypothesis, he has culled data supporting these views from a multitude of sources. The central theme of this hypothesis is that we are controlled physiologically by the domination of our glands of internal secretion. This "gland centering" is essentially an inherited characteristic, but also one subject to changes during the life of the individual. Thus an individual may at one time be "adrenal centered" and at another time "thyroid or pituitary centered". As one might naturally suspect, the "gonad centered" individuals receive conspicuous attention throughout the volume. Supporting this hypothesis, and as a corollary of it, various pathological states, both physical and mental, are analyzed and explained.

His form of presentation is fascinating, so fascinating in fact that the reader is unconsciously carried from the realm of the known into that of the unknown by the writer's smooth composition.

As diversion, the volume can be read with rapt interest. One cannot help feeling, on finishing the reading, however, that but little information of proven value has been acquired.

THE USE OF SYMPTOMS IN THE DIAGNOSIS OF DISEASES

By Hobart Hare, B.Sc., M.D., L.L.D., Professor of Therapeutics and Diagnosis in Jefferson Medical College, Philadelphia; Physician to the Jefferson Medical College Hospital, Etc. Ninth Edition, Thoroughly Revised. Illustrated with 124 Engravings and 4 Plates. Lea and Febiger, Philadelphia, 1928. Price \$5.50, Net.

This interesting book reviews the question of diagnosis from the point of bedside study. Dr. Hare indicates that one of the serious difficulties that confronts the young physician is, that if taught to make a diagnosis in the laboratory, he is liable to be confused at the bedside in estimating the value of symptoms. Dr. Hare is inclined to criticize the tendency of certain advocates of scientific medicine to undervalue purely clinical medicine, thus threatening to undermine the art of medicine. The brilliant results of laboratory methods tend to inspire an undue confidence in the revelations of the laboratory and thus divert the mind from the study of the patient, which is so essential to a full and complete diagnosis.

Dr. Hare's method of diagnosis is to study the patient, his symptoms, supplemented with laboratory studies.

Following the discussion of the various diseases considered in this book, we are made to feel that we are following a safe guide in our search for a scientific and practical diagnosis. We are not surprised to find in many writings a condescending attitude towards the practical bedside methods of diagnosis. We feel therefore that Dr. Hare has rendered the

profession a real service in drawing attention to the fact that an undue reliance placed upon laboratory methods in diagnosis without a due regard for clinical studies would be unfortunate. D. S. F.

SURGICAL CLINICS OF NORTH AMERICA

Volume VIII, No. 1, 210 Pages, with 74 Illustrations. Per Clinic Year, Paper \$12.00, Cloth, \$10.00. W. B. Saunders Company, 1928.

This is a presentation from the famous Lahey Clinic of Boston and is, in fact, a work on certain limited fields of surgery by the members of the Clinic.

The first section of the book, including fifty-nine pages, is devoted to the work of Dr. Frank H. Lahey. We are impressed by a statement made by Dr. Lahey in considering the Management of Post-Thyroidectomy Complications, in which he says, "I hardly know of a surgical procedure which can be followed so suddenly by post-operative complications of such a character that, unless immediately combatted by proper measures, in a very considerable number of instances eventuates in a fatal outcome". This fact is of such importance that it should never leave the mind of the surgeon in goiter work. Such impressive statements characterize Dr. Lahey's writings.

Dr. Sarah M. Jordan presents an important discussion on Diagnosis of Early Malignancy of the Colon.

The Radical Operation for Carcinoma of the Breast is the subject of discussion by Dr. Robert L. Mason.

The Use of Quinidin Sulphate in Auricular Fibrillation is presented by Dr. Lewis M. Hurxthal.

Dr. Howard M. Cluter considers several important subjects in general surgery. D. S. F.

CRAWFORD W. LONG, AND THE DISCOVERY OF ETHER ANESTHESIA

By Francis Long Taylor, with a Foreword by Francis R. Packard, M.D. With Eight Full-Page Plates. Paul B. Hoeber, Inc., New York, 1928. Price \$4.00.

The long controversy over the discovery of ether anesthesia appears now to be settled in a friendly spirit by granting to both W. T. G. Morton and Crawford W. Long the credit of an independent discovery of ether as an anesthetic. The question of priority, of interest chiefly to the principals and their friends, has given place to a feeling of gratitude to the two men who brought relief from the sufferings of surgical operations.

W. T. D. Morton had the great advantage of deliberately planning out an ether anesthesia and a surgical operation, while Long made his discovery by accident. Morton demonstrated his discovery in a great medical center in one of the best equipped hospitals in the country and the results promptly published.

Dr. Long practiced in a small country village in Georgia and with others had inhaled the vapor of ether for the sport of exhilarating exhibitions. A man by the name of Venable had two small tumors on the back of his neck which he would like to get rid of, but feared the pain of an operation. Dr. Long had in mind the temporary anesthetic effects of the vapor of ether in his exhilaration experiments and suggested to Mr. Venable the trial of ether vapor to relieve the pain of the operation. The suggestion was accepted and the operation performed without pain. This was on March 30, 1842. The success of this undertaking was followed by other operations, with the same results. But Dr. Long did not publish his work which was known only to his friends. On the claim of priority alone Dr. Long is entitled to the first place, but in accordance with the generally accepted standards of priority Dr. Morton comes first.

The interest in this book is not so much the defense of the priority claims for Dr. Long, as the intimate life of Dr. Long written by his daughter Mrs. Taylor. Dr. Long was a southern gentleman of the old school, with high ideals, a physician devoted to service, quite different from Dr. Morton, who, with Dr. Jackson, would patent this new discovery for their own financial gains. D. S. F.

ADDRESSES ON SURGICAL SUBJECTS

By Sir Berkley Moynihan, Bart., President of the Royal College of Surgeons of England. Octavo of 348 Pages, Illustrated. W. B. Saunders Company, 1928. Cloth, \$6.00 Net.

This book contains addresses delivered by Sir Berkley Moynihan on different occasions and published in various medical journals. Those who have had the opportunity to hear Sir Berkley will recognize with peculiar interest the clear, forcible and impressive style with which he presents his subject. Few men have the faculty of presenting a subject in an equally thoughtful manner.

In his first address Sir Berkley draws a comparison between Hunter and Lister; the ideals of Hunter and the practice of Lister. Hunter had not the advantage of education possessed by Lister, but at that early day he recognized the limitations of surgery and presented the ideals of what surgery should be. Lister had the advantage of the knowledge which would make the ideals of Hunter possible.

In another lecture Moynihan draws attention to a question of the deepest importance, not to the operation in itself, but conditions before and after the operation.

As time passes the position occupied by Dr. John B. Murphy as a surgeon grows in interest and importance, not only as an operator but as a thinker and orator. Sir Berkley was an admiring friend of Dr. Murphy and presents an appreciative estimate of him as a surgeon of remarkable resourcefulness and skill, in introducing new methods and improving

on them. The debt which surgery owed to pure science was never ignored by Sir Berkley and the helpfulness of radiology. On the many occasions for the celebrations of the gifts of medicine to humanity, a medical orator of Dr. Moynihan's rank is much in demand.

Of course it is quite natural that Dr. Moynihan should review the contributions of Leeds' surgeons in an address delivered at the University of Leeds. It is shown that Leeds has contributed a fair share to the advancement of medicine and surgery.

SURGICAL CLINICS OF NORTH AMERICA

Volume VIII, Number 3, 219 Pages, with 49 Illustrations. Price Per Clinic Year, Paper, \$12.00; Cloth, \$16.00.

This, a Chicago number, is introduced by an important clinic by Dr. Arthur Dean Bevan at Presbyterian Hospital, followed by an interesting clinic by Dr. Speed Kellogg. Dr. Kellogg has become a recognized authority on bone and joint surgery and this clinic on Acute Epiphysitis of the Femur, in which twelve cases are presented, is of great value to the general surgeon.

Dr. Daniel M. Eisendrath presents an important discussion on The Causes of Failure After Bladder Neck Operations. The conditions for such failure appear in several illustrations.

There are other important clinics on other subjects of equal interest which space will not permit us to consider.

THE SPRINGTIME OF PHYSICK

Being a Diverting Outline of Medicine and Surgery, by Laurance D. Redway, M.D., Attending Ophthalmologist of Northern Westchester Hospital, Mount Kisco, N. Y., Etc. Published by the Int. Journal of Surgery Co., 18 East 41st Street, New York. Price, \$2.00 Per Copy.

This small volume of sixty-eight pages is, in the words of the author, an effort to correct "the failure of the medical profession to provide an avid public with a suitable Outline of Medicine and Surgery". The historical background for this outline bears semblance to a standard history only in the names of the leading characters. It is written with a subtle humor which in itself renders its reading a pleasure, but the most noteworthy accomplishment of the author is its wholesome and bold satire. For example, what could be more pleasing than his description of the first physician, Asklepias: "People called him 'Doc', borrowed money from him, sold him fraudulent oil stock, and sometimes failed to pay his bills just as though he were a regular practitioner graduated from a reputable medical school". In another part in connection with the founding of the first medical school, we find the author placing the following conversation in the mouth of Asklepias: "But if we can raise the money for buildings,

I think the matter of teachers can be arranged. They are of relatively small importance anyhow". In other paragraphs we find an essence of philosophy such as: "But people are intellectually lazy, and willing to put up with and believe what is told them rather than go to the trouble of looking up things for themselves."

Perhaps these extracts will serve to typify the style of the author but nothing short of a careful reading can reveal its wealth of wit and wisdom.

A TEXT-BOOK OF SURGERY

By W. Wayne Babcock, M.D., F.A.C.S., Professor of Surgery and of Clinical Surgery in the Temple University, Philadelphia; Surgeon to the Samaritan Hospital and to the American Hospital for Diseases of the Stomach. Octavo of 1367 Pages with 1050 Illustrations, 9 of Them in Colors. Philadelphia and London: W. B. Saunders Company, 1928. Cloth, \$10.00 Net.

This new Surgical Text-book is one of the outstanding contributions to surgical teaching of the year. It is written from a sanely modern point of view, and typifies the spirit as well as the practice of surgery of today. It is written with an appreciation that the surgeon of today has, in a large measure, been a divested of his cloak of the supernatural and must now look to end results in restored physiology for approbation. He has appropriately stressed the surgeons' responsibility in employing artistry, delicacy, and finesse in achieving a restoration of function and not resting content with a result short of the best possible with our present knowledge. He has recorded older methods only where they are useful historically or because their usefulness has remained unreplaced by newer ones.

The grouping of the material presented appears well suited for teaching purposes, and since the requirements of undergraduate instruction are essentially those of the practicing surgeon, this book should adequately fill the needs of both. One is impressed by the clear and forceful language employed throughout the book and the numerous illustrations are among the best to be found in any text-book on the subject.

STEDMAN'S MEDICAL DICTIONARY

A Practical Medical Dictionary by Thomas Lathrop Stedman, A.M., M.D., Editor of the "Twentieth Century Practice of Medicine" and of the "Reference Handbook of the Medical Sciences". Formerly Editor of the "Medical Record". Tenth, Revised Edition. Illustrated. New York. William Wood and Company. Price \$7.50.

Medical science, in all of its branches, has gone through a period of signal advancement during the past few years. As science advances new words

spring into use and older or less suited ones are relegated into the discard. A dictionary to remain serviceable, then, must be subjected to frequent, if not constant, revision. Stedman's Medical Dictionary, long recognized as a standard, has been kept abreast the times by careful and frequent revisions. In this, the tenth edition, we find some five hundred new words incorporated. This enlargement has been made possible, without adding bulk, by the omission of certain discontinued pharmaceutical preparations, a group of obsolete words, and the entire list of mineral springs included in earlier editions. The flexible binding and thumb index add materially to the appearance and serviceability of the volume.

NEUROLOGICAL EXAMINATION

An Exposition of Tests with Interpretation of Signs and Symptoms. By Charles A. McKendree, M.D., Associate, Department of Neurology, College of Physicians and Surgeons, Columbia University. With a Foreword by Henry Alsop Riley, M.D., 12 Mo. of 280 Pages with 88 Illustrations. Philadelphia and London: W. B. Saunders Company, 1928. Cloth \$3.25 Net.

This book is a well arranged and classified compendium of information intended to familiarize medical students and interested physicians with the important points of neurological diagnosis as well as with a comprehensive and systematic form of examination of the central nervous system.

The sections, beginning with The History which contains valuable hints on the approach to neuropsychiatric situations at once delicate and complex and a comprehensive Examination Form and ending with a section on Summary and Diagnostic Impressions follow one another in logical sequence.

The most important sections are those on Physical Examination, Sensory Examination, Cranial Nerves and Systemic Examination. A valuable feature of the section on Cranial Nerves is the paragraph of descriptive anatomy which accompanies the consideration of each nerve. The section on Systemic Examination links up neurological conditions with the many associated processes in other organ systems.

The book is particularly rich in its enumeration and description of the signs, reflexes and syndromes so common in neurology and so difficult to identify in the usual text.

The approach in all instances is from the point of presenting symptoms rather than from that of disease groups or entities. No treatment is suggested and no speculations indulged in, points which will be much appreciated by the busy diagnostician.

The diction is good, the index exhaustive and the illustrations adequate, particularly those depicting the approved method of obtaining the more commonly used deep reflexes.

The section on Mental Status, although highly accurate and in accord with modern psychiatric thought is entirely too short and didactic to give the student much of a psychiatric point of view. However, it should encourage the student to make purely objective observations on psychiatric patients rather than to use diagnostic terms.

The addition of the details of the technique of spinal fluid examination, to the section on Laboratory Tests, would be of great assistance to those physicians who do not have access to a laboratory where these rather specialized procedures are carried out.

This book is not a text and is not so considered by the author. It is not intended to replace but to supplement the standard text-books on neurology and psychiatry.

Not the least important and pleasing feature of the book is the Foreword by Dr. Henry Alsop Riley which in a few pages gives us the substance of the Philosophy of Neurology. R. C. D.

THE SURGICAL CLINICS OF NORTH AMERICA

Volume VIII, Number 2, 256 Pages, with 90 Illustrations. April, 1928. W. B. Saunders & Co. Cloth, \$16.00; Paper, \$12.00.

The introductory clinic is by Dr. John F. Erdman, the distinguished New York surgeon, followed by a lung clinic by Dr. Howard Lilienthal under the title, "Tuberculosis of the Lungs, Apicolysis by Two Different Methods", an interesting, but difficult subject.

Dr. J. J. Moorhead who contributes rather extensively to traumatic and industrial surgery, presents several clinical cases. One in particular, relates to physiotherapy, which is the subject of considerable controversy. After reviewing some of the costly appliances, he expresses his preference for massage, with regulated prescribed motions. Next in value is external heat applied in the form of baking, or moist heat. Dr. Moorhead further expresses himself in relation to diathermy as not being very helpful. This view will not be agreed to by many enthusiasts.

Dr. Edwin Beer of Mt. Sinai Hospital presents interesting observations on "Benign Enlargement of the Prostate". Drs. Israel Strauss and Joseph H. Globus give a rather extensive discussion on "Intracranial Tumors", in which a group of twelve cases are reviewed.

"Urinary Obstruction" is an interesting and important presentation by Dr. Winfield Scott Pugh.

A group of doctors including Drs. Charles Murray Gratz, Irving Sherwood Wright and Ian MacKenzie review "Arthritis: Medical and Surgical Treatment". This is a very interesting subject and invites much thought.

This is a New York number and is of unusual interest. D. S. F.

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